Sunnyvale East and West Channels Flood Protection Project

Final Environmental Impact Report

August 2014

Santa Clara Valley Water District

Horizon WATER and ENVIRONMENT

FINAL ENVIRONMENTAL IMPACT REPORT

Sunnyvale East and West Channels Flood Protection Project

(State Clearinghouse No. 2013012041)

Prepared for:

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Chapter 1
Introduction

The Santa Clara Valley Water District (District) as lead agency, has prepared this Final Environmental Impact Report (FEIR) to provide other responsible agencies and the public with information about the potential environmental effects of the proposed Sunnyvale East and West Channels Flood Protection Project (Proposed Project). This FEIR was prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended) and the State CEQA Guidelines (California Code of Regulations [CCR] title 14, Section 15000 et seq.).

1.1 FEIR Context

The District's Board of Directors is considering the Proposed Project which involves constructing a series of infrastructure upgrades to provide additional flood protection within the City of Sunnyvale and improve water quality. The Proposed Project is intended to meet the following objectives:

- Provide riverine flood protection where historic flooding has occurred and future flooding is possible from a 100-year storm event (1% risk of occurring any year);
- Provide a basis to update FEMA flood hazard maps upon completion of the Proposed Project to reflect 100-year riverine flood protection along the improved channels and reduce or eliminate flood insurance requirements in the communities surrounding the Sunnyvale Channels;
- Provide infrastructure improvements beyond 100-year riverine flood protection as necessary to meet the District's freeboard standards;
- Provide water quality improvements by repairing/stabilizing existing erosion sites; and
- Provide recommendations for recreational enhancements in coordination with flood and water quality improvements.

The Proposed Project was evaluated in a draft environmental impact report (DEIR) in accordance with CEQA and the State CEQA Guidelines, and was circulated for a 45-day public review period.

CEQA requires the lead agency to prepare a FEIR, addressing all substantive comments received on the DEIR before approving a project. The FEIR must include a list of all individuals, organizations, and agencies that provided comments on the DEIR, and must

contain copies of all comments received during the public review period along with the lead agency's responses.

The FEIR will be distributed to public agencies that provided comments 10 days prior to certifying the FEIR. At the close of the 10-day public agency review period, the District's Board of Directors will review the FEIR, consider District staff recommendations and public testimony, and decide whether to certify the FEIR and approve or deny the Proposed Project.

Upon certification of the FEIR and approval of the Proposed Project, the District will file a Notice of Determination with the State Office of Planning and Research (OPR) and at the office of the Santa Clara County Clerk (14 CCR 15093[c]).

1.2 Comments on the DEIR

The DEIR was submitted to the State Clearinghouse for distribution to state agencies and was available to agencies and the public for review and comment for 45 days between November 1 and December 15, 2013. A public meeting was conducted on November 20, 2013 to receive oral and written comments. One member of the public spoke at that meeting. Letters of comment were received from state agencies and commissions; regional/local agencies, municipalities, and districts; organizations; and individuals.

1.3 Organization and Contents of the FEIR

The FEIR will be the subject of a hearing to certify the EIR.

Chapter 1, *Introduction*. This chapter presents the FEIR context and its objectives, summarizes the public review period for the DEIR, and describes the organization and contents of the FSEIR.

Chapter 2, *Summary of Public Participation*. This chapter summarizes the environmental and public review process, pursuant to CEQA.

Chapter 3, C*omment Letters and Responses to Comments*. This chapter lists and gives identifiers to agencies, organizations, and members of the public who commented on the DEIR during the public review process, replicates in full the comments received, and gives responses to those comments. Comments within each letter are numbered sequentially. Excerpts of text from the DEIR that have changed as a result of the comment/response are shown within the response, for ease of reference.

Chapter 4, *Revisions to the DEIR*. This chapter provides excerpts of all text from the DEIR that have changed as a result of the comment/response and are shown within the response, for ease of reference. Revisions are shown with ~~strikethrough~~ text for deletions and <u>underlined</u> text for additions.

Appendix A. Presents the DEIR Notice of Availability and distribution list.

Appendix B. Presents the Public Meeting Presentation and Sign-In Sheets.

Appendix C. Presents the Mitigation Monitoring and Reporting Program.

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Chapter 2
SUMMARY OF PUBLIC PARTICIPATION

Public disclosure and informed decision-making are priorities under CEQA. CEQA mandates two periods during the EIR process when public and agency comments on the impacts of a proposed project are solicited: 1) during the scoping comment period, and 2) for a DEIR, during the public review period. This chapter summarizes the District's efforts to comply with CEQA mandates for public disclosure.

2.1 Notice of Preparation and Public Scoping

Scoping refers to the public outreach process used under CEQA to determine the coverage and content of an EIR. The scoping comment period offers an important early opportunity for public review and comment on the focus of the CEQA analysis. The scoping process for an EIR is initiated by publication of the Notice of Preparation (NOP), as required by CEQA, which provides formal notice to the public and to interested agencies and organizations that a DEIR is in preparation. During the scoping period, agencies and the public are invited to comment on the project, the approach to the environmental analysis, and any issues of concern to be discussed in the DEIR. Scoping also can assist the lead agency with identification of project alternatives and mitigation measures. CEQA does not require public meetings during the scoping phase.

In accordance with State CEQA Guidelines (14 CCR 15082[a], 15103, 15375), the District circulated an NOP for the Proposed Project on January 15, 2013 (Appendix A of the DEIR). The NOP, in which the District was identified as lead agency for the Proposed Project, was circulated to the public; to local, state, and federal agencies; and to other interested parties. The purpose of the NOP was to inform responsible agencies and the public that the Proposed Project could have significant effects on the environment and to solicit their comments so that any concerns raised could be considered during the preparation of the DEIR. In addition, the District held a public scoping meeting on January 24, 2013, at Fairwood Elementary School in the City of Sunnyvale, to provide the public with another opportunity to comment. Comments received in response to the NOP are included in Appendix B of the DEIR, and the preparers of the DEIR considered these comments.

2.2 Notice of Availability of the DEIR and Public Review

After the DEIR was completed, the District issued a notice of availability, providing agencies and the public with formal notification that the document was available for review. The notice was sent to the State CEQA Clearinghouse, all responsible and trustee agencies, persons and organizations requesting a copy, and the county clerk's office for posting. The notice also was published in the Sunnyvale Sun. These actions triggered a 45-day public review period (November 1 through December 15, 2013), during which the District received public and agency comments on the project and the document. The public review period was extended to February 21, 2014 to accommodate additional review time requested by public agencies.

The District hosted a public hearing after release of the document on November 20, 2013, at Fairwood Elementary School in Sunnyvale. The purpose of public circulation and the public hearing was to provide agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of the DEIR.

Written comments or questions concerning the DEIR could be submitted within the review period and directed to the name and address listed below. Submittal of written comments via e-mail was encouraged.

Santa Clara Valley Water District
Attention: Tiffany Hernandez
5750 Almaden Expressway
San Jose, CA 95118-3686

E-mail: thernandez@valleywater.org

During the review period for the DEIR, all documents related to the Proposed Project were available for review on any District business day between the hours of 7:30 a.m. and 5:00 p.m. Monday through Friday at the District headquarters, located at the address shown above, and on the District's Web site at www.valleywater.org/service/SunnyvaleEastandWest.aspx.

2.3 Preparation of the FEIR and Public Hearing

CEQA requires the lead agency to prepare an FEIR, addressing all substantive comments received on the DEIR before approving a project. The FEIR must include a list of all individuals, organizations, and agencies that provided comments on the DEIR, and must contain copies of all comments received during the public review period along with the lead agency's responses.

After review of the FEIR, the District staff will recommend to the District's Board of Directors whether to approve or deny the Proposed Project. This governing body then will review the FEIR, consider the District staff recommendations and public testimony, and decide whether to certify the FEIR and approve or deny the Proposed Project.

If significant impacts are identified in the FEIR that cannot be mitigated, a statement of overriding considerations must be included in the record of the Proposed Project approval and mentioned in the Notice of Determination, to be filed with the State Office of Planning and Research and at the office of the County Clerk (14 CCR 15093[c]).

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Chapter 3
Comment Letters and Responses to Comments

3.1 Comments Introduction

Comments provided on the DEIR by agencies, organizations, and individuals during the public review period are documented in this chapter. Comments were submitted by letter, email, and verbally at a public meeting. A list of all commenters is provided in Section 3.2. The District received comments from 12 individuals, containing a total of 96 comments. Copies of comment letters and other public input and responses to all comments are presented in Section 3.3.

3.2 List of Comment Letters Received

The comment letters received on the DEIR were sorted by date. They were then assigned a letter designation on this basis. The commenters and identifiers are presented in order of receipt in Table 3-1. Table 3-2 presents the comment letters by commenter type.

Table 3-1. Commenters on the DEIR (numerical by alpha-letter number)

Letter No. (# of Comments)	Commenter	Date of Comment
A-1 (1)	Chad Whelan	November 20, 2013
A-2 (1)	Thomas Osborne	November 20, 2013
A-3 (1)	Sol Shatz	November 20, 2013
A-4 (1)	Leslie Lambert	November 20, 2013
A-5 through A-6 (2)	Rick Adolf	November 20, 2013
B (1)	East Channel Homeowners	November 20, 2013
C (1)	Thomas Osborne	November 25, 2013
D (44)	City of Sunnyvale	December 23, 2013
E (15)	California Department of Transportation	December 12, 2013
F (1)	County of Santa Clara, Department of Environmental Health	December 12, 2013
G (13)	California Department of Fish and Wildlife	December 26, 2013
H (15)	San Francisco Bay Regional Water Quality Control Board	February 21, 2014

Table 3-2. Commenters on the DEIR (by commenter type)

Letter No. (# of Comments)	Commenter	Date of Comment
State Agencies and Commissions		
E (15)	California Department of Transportation	December 12, 2013
G (13)	California Department of Fish and Wildlife	December 26, 2013
H (15)	San Francisco Bay Regional Water Quality Control Board	February 21, 2014
Regional/Local Agencies, Municipalities, and Districts		
D (44)	City of Sunnyvale	December 23, 2013
F (1)	County of Santa Clara, Department of Environmental Health	December 12, 2013
Organizations		
B	East Channel Home Owners	November 20, 2013
Individuals		
A-1 (1)	Chad Whelan	November 20, 2013
A-2; C (2 total)	Thomas Osborne	November 20, 2013; November 25, 2013
A-3 (1)	Sol Shatz	November 20, 2013
A-4 (1)	Leslie Lambert	November 20, 2013
A-5 through A-6 (2)	Rick Adolf	November 20, 2013

3.3 Comments and Responses to Comments

This section presents a copy of each comment letter that was received on the DEIR during the review period, bracketing the individual comments in alpha and numeric order. Responses to issues raised in each letter follow immediately after the letter, sequentially.

Santa Clara Valley Water District
Sunnyvale East and West Channels Flood Protection Project

Draft EIR Public Meeting Notes

Wednesday, November 20, 2013, 6:30pm – 8:30pm
Fairwood Elementary School – Multipurpose Room
1110 Fairwood Avenue, Sunnyvale, CA.

Public Comments

Chad Whelan – Sunnyvale Resident near Evelyn crossing of East Channel

Will the project include public recreational trails? A-1

Thomas Osborne

A dog that may have been trapped in the channel was rescued from the south end of East Channel near Fremont Avenue. Will there be means to get pets out of the channel after the walls will be built, and fences constructed? What if a dog gets over the fence into the channel and cannot get out? A-2

Sol Shatz – resident of East Channel south of Fremont Ave, near Fremont High School and Ortega Park.

When will construction start in the area where I live? A-3

Leslie Lambert – resident of Sunnyvale, Plaza del Rey mobile home park

Will the project include work on the East Channel at Tasman, like removing the concrete there? A-4

Rick Adolf – resident of Sunnyvale, Saul's neighbor

When will the construction details be made available? A-5

Will regular maintenance be performed in the time before construction starts? There is a lot of debris built up in the channel in our neighborhood (East Channel south of Fremont Ave.) A-6

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Comment Letter A – Attendees of November 20, 2013 Public Meeting

Response to Comment A-1

The DEIR described that certain portions of the channel maintenance roads would be paved. However, the DEIR did not specifically disclose that these paved areas would be paved for the purpose of recreational use as part of the City of Sunnyvale's 2006 Bicycle Plan (City of Sunnyvale 2006). After Project construction, paved maintenance roads along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive would be open to the public for recreational use. DEIR Chapter 2, "Project Description" has been changed on page 2-47, the second paragraph under "Maintenance Road Improvements" as follows:

> The District and the City of Sunnyvale may enter into a Joint Use Agreement (JUA) to provide public access to certain portions of channel maintenance roads for the purpose of recreational use. If the JUA is approved by the District and the City of Sunnyvale, t~~T~~he District may pave several stretches of its existing gravel maintenance roads that are already commonly used for bicycling, hiking, and dog walking. However, most of the channel maintenance roads would remain unpaved. Paving of maintenance roads for recreational purposes would occur along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive. These recommendations are made with the specific intent of improving the road surfaces for bicycling, in compliance with Class I Bike Facilities for the City of Sunnyvale 2006 Bicycle Plan (City of Sunnyvale 2006) for which the City of Sunnyvale has already evaluated the impacts of an increase in bicycling and other recreational uses that would occur under the Bicycle Plan. Any damage that may occur to the paved maintenance road would be repaired at the cost and direction of the City of Sunnyvale in accordance with the JUA.

Additionally, evaluation of potential environmental effects of recreational use of these paved reaches has been added to the DEIR as summarized below. See FEIR Chapter 4 for the specific edits to the DEIR.

- A new impact was added to DEIR Section 3.9, "Land Use and Planning" Impact LU-2: *Use of Maintenance Roads for Recreation Conflicts with Applicable Land Use Plans or Policies.* This impact identifies a less-than-significant impact due to use of maintenance roads for recreation and potential conflicts with City of Sunnyvale land use plans and policies.

- An evaluation of potential changes in noise due to recreational use of the paved maintenance road reaches was added to DEIR Section 3.10, "Noise and Vibration" Impact NO-4: *Permanent Alteration of Ambient Noise Levels from Project Components*. A less-than-significant impact would result.

- DEIR Impact REC-2: *Permanent Loss or Deterioration of Public Recreational Opportunities Resulting from the Proposed Project* in Section 3.11, "Recreation" was updated to include the proposed recreational use of the paved maintenance roads and the impact conclusion was modified to indicate that the proposed recreational use would enhance recreational opportunities in the area.

- DEIR Chapter 4, "Other Statutory Requirements" was updated to clarify the District and City of Sunnyvale Joint Use Agreement for the paved recreational trails and document that potential impacts to recreation have been evaluated in the EIR.

Response to Comment A-2

The proposed floodwalls would not be continuous. As such, animals that enter the channel would be able to escape by moving up or downstream. In areas with outboard floodwalls, there would be no impact to animals since there are maintenance roads along the channel that can be utilized by the animals to traverse unimpeded the entire length of the channels. For inboard floodwalls, in particular the Sunnyvale West Channel, there is the potential for animals that enter upstream of the floodwalls and travel downstream to have difficulty exiting the area due to increased floodwall heights. The animals could turn around and exit the channel where they entered or exit at the downstream limits where the floodwalls terminate. In areas where there are no floodwalls, the potential for animals to become trapped in the channel is no different than the potential that exists currently. If animals were to become trapped within the channel, local animal control authorities could be called.

Response to Comment A-3

The construction schedule for the Proposed Project is discussed in Chapter 2 *Project Description,* of the DEIR, on page 2-63, under *Construction Phasing*. As described in this section, construction of the Proposed Project is planned to take place over two summers. In both years, the work window is expected to begin around May 1st and continue through about November 1st. Construction would only take place during the work week, with standard holiday breaks.

All references to the anticipated project construction period have been changed to identify construction in the summers of 2015 and 2016, and project completion by December 31, 2016. Previously, the DEIR identified the project being completed in 2015.

Response to Comment A-4

The Proposed Project would include work on the East Channel at Tasman Drive. Figure 2-3e *Proposed Project Components*, on page 2-27, in Chapter 2 of the DEIR shows proposed work in this area. As indicated in Figure 2-3e, the Proposed Project would

include inboard and outboard floodwall improvements, floodwall ramp construction, and bridge/culvert modifications.

Construction of floodwalls and floodwall ramps is discussed in the DEIR on pages 2-37 through 2-43. Bridge/culvert modifications at Tasman Drive would involve raising headwalls by approximately 2 feet on the upstream and downstream faces of Tasman Drive crossing (see Table 2-2. *Proposed Bridge/Culvert Modifications* on page 2-48). Concrete would either be added to the existing headwall structures, or existing headwall structures would be demolished and new concrete headwalls would be constructed at a higher elevation.

Additional information on construction activities proposed at Tasman Drive is provided in the DEIR in Table 2-5. *Project Construction Overview,* on page 2-67.

Response to Comment A-5

Construction details are discussed on page 2-65, in Chapter 2 of the DEIR. Table 2-5. *Project Construction Overview*, on page 2-67, includes information on construction activities, construction technique, construction area, and construction equipment for all proposed construction components (e.g., floodwalls, levee raising).

The construction schedule for the Proposed Project is discussed in Chapter 2 on page 2-63, under *Construction Phasing*. As described in this section of the DEIR, construction of the Proposed Project is planned to take place over two summers. In both years, the work window is expected to begin around May 1st and continue through about November 1st. Construction would only take place during the work week, with standard holiday breaks.

All references to the anticipated project construction period have been changed to identify construction in the summers of 2015 and 2016, and project completion by December 31, 2016. Previously, the DEIR identified the project being completed in 2015. Contact the District for updated information on the construction schedule.

Response to Comment A-6

District maintenance staff will perform site inspections and necessary maintenance work, such as debris removal, until Project construction begins.

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TO SANTA CLARA VALLEY WATER DISTRICT **11/20/13**

We live adjacent to Sunnyvale East Channel Flood Protection Channel. On the short segment of the channel between Carlisle Ave and Ashborne/Fremont Ave.

There are more than 25 homeowners immediately next to the channel. For over forty years the channel has become grossly filled by an accumulation of sediment, soil and debris and the floor level has risen greatly.

In the late seventies and in 1983, the channel flooded so badly that our yards were so flooded that water flowed around the houses and onto Fisherhawk Drive and substantial damage occurred. More recently, during ordinary rains, the water in the channel has risen very near overflowing. So now after so many years of additional sediment/soil accumulation the gross channel obstruction must be removed as soon as possible. The channel obstruction posses a hazard to residents life and limb as well as property. Increasingly the insurance companies, the local and national media are taking interest in this unnecessary hazard. B-1

Please remove this hazard within two weeks before storms of the 2013 season occur.

East channel homeowners

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Comment Letter B – East Channel Homeowners

Response to Comment B-1

Sediment removal is not proposed for the section of the East Channel between East Fremont Avenue/Ashbourne Avenue and Carlisle Way. The location of proposed sediment removal activities is shown in Figure 2-3i *Proposed Project Components,* on page 2-35 of the DEIR. As can be seen in this figure, sediment removal is proposed for a segment of the channel just south of Carlisle Way, as well as three other locations along the East Channel. Table 2-3. *Proposed Sediment Removal Activities,* on page 2-59, contains additional information on the location and extent of proposed sediment removal activities.

The construction schedule for the Proposed Project is discussed in Chapter 2 *Project Description* of the DEIR, on page 2-63, under *Construction Phasing*. Removal of sediment would be conducted together with other Project components identified in the same channel reaches. As described in *Construction Phasing*, construction of the Proposed Project is planned to take place over the summers of 2015 and 2016. In both years, the work window is expected to begin around May 1st and continue through about November 1st. In-channel work, such as sediment removal, would occur during the driest time of the year, approximately between June 1st and October 1st.

Following Project construction, future routine maintenance activities at the Sunnyvale Channels may include trash and debris removal, vegetation management, and minor sediment removal to periodically clear culverts (see page 2-62 of the DEIR).

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From: Stephen Ferranti
To: Jill Sunahara; Ken Schwarz
Cc: Tiffany Hernandez; Patrick Stanton; Jessica Collins
Subject: Sunnyvale E-W EIR comment
Date: Monday, November 25, 2013 11:29:20 AM
Attachments: image001.png

Sent to Access Valley Water:

From: Osborne, Thomas
Date: 11/23/2013

"I believe a passive means for dogs and cats to leave the East and West Channel project's right of way should be included in the project. Removing dead animals or carcasses four time a year is not a solution in the twenty first century. With high walls, the public will not be able to be the eyes and ears for the water district.

Please add undesired domestic animal deaths to the environmental impact statement." C-1

STEPHEN M. FERRANTI, P.E.
Engineering Unit Manager
Design & Construction Unit #3
Office of Watersheds Design & Construction
Santa Clara Valley Water District
(408) 630-2677
sferranti@valleywater.org

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Comment Letter C – Osborne, Thomas (Resident)

Response to Comment C-1

See *Response to Comment A-2.*

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Letter D

December 23, 2013

Santa Clara Valley Water District
Attention: Tiffany Hernandez
5750 Almaden Expressway
San Jose, CA 95118

Re: Draft Environmental Impact Report – Sunnyvale East and West Channels Flood Protection Project

Dear Ms. Hernandez:

The City of Sunnyvale appreciates the opportunity to comment on the Environmental Impact Report (EIR) for the subject project. We appreciate the District's efforts to deliver a project that will provide flood protection and recreational opportunities for Sunnyvale residents and businesses. The City submits the following comments to help ensure that the final project will meet both the District's and City's goals and vision and look forward to continuing our partnership to help achieve a positive outcome.

General Comments

1. Please include/confirm that the Project DEIR properly addresses and environmentally clears the construction of recreational trails in accordance with prior agreements between the City and District. D-1
2. Aesthetics – The project is proposing three to four foot walls along the channel and a seven foot wall at Carl Road and eight foot wall at Caribbean Drive. The project proposes a 2" vertical corrugated ribbing as part of the wall design. The proposed walls will be a significant change to the existing views and the project needs to propose a higher level of aesthetic design. The designs should also look at opportunities to incorporate public art to create some positive visual elements. The EIR should provide different options as well as renditions of possible design elements that will mitigate the visual impacts and a commitment to work with the City of Sunnyvale to cooperate on a design that will be an enhancement to the corridor. Attached are examples for your use, however these are not intended to reflect a proposed preferred design. A discussion on graffiti and possible anti-graffiti treatments should also be included. D-2
3. Per discussions between the City and District, the traffic analysis must be updated to reflect one travel lane in each direction on Caribbean Drive. The analysis should update the Level-of-Service calculations and discuss overall vehicle thru capacity. The analysis must also discuss traffic redistribution due to the changes to Caribbean and a roadway capacity and LOS analysis for redistributed traffic. D-3

ADDRESS ALL MAIL TO: P.O. BOX 3707, SUNNYVALE, CALIFORNIA 94088-3707
TDD (408) 730-7500

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D-4 4. The EIR needs to describe the proposed plan for employee parking during construction and analyze locations and access needs.

D-5 5. If haul routes and/or additional traffic control needs have already been identified than they must be disclosed as part of the EIR.

D-6 6. For permanent and temporary easements on City property, the City and District have not determined which locations could be available for project use and the appropriate compensation required for each one. It is not clear if the EIR is intended to provide final environmental clearance for temporary or permanent easements or additional environmental clearance will be required.

D-7 7. The EIR needs to include a discussion of continued maintenance responsibilities for storm outfall structures. Specifically those in tidally influenced areas that have flap gates attached to prevent localized flooding.

D-8 8. The EIR needs to include a discussion of flood gate installation or localized flood impacts in areas where flap gates are needed due to tidal influence.

D-9 9. Will any staging areas be proposed in the ROW? If so please include in EIR.

D-10 10. What are the noise and vibration impacts to residents?

Specific Comments

11. ES-7 - In Table ES-1, "Proposed Regulatory Permits, Approvals and Consultations", under State Agencies:

D-11
- Under Regional Water Quality Control Board, the project activities should include "potential impacts to the Sunnyvale Landfill's Water Corrective Action Plan", which is currently being implemented.

D-12
- CalRecycle should be added with respect to discussions of "any impact to the landfill's cover during the course of the project" (their involvement would likely be at the discretion of our Local Enforcement Agency).

D-13
- Page ES-7, Table ES-1, Local Agencies, City of Sunnyvale: add Land Acquisition, Easement Deed to the list.

D-14
- In Table ES-1, Local Agencies, the landfill's Local Enforcement Agency (LEA), the Santa Clara County Department of Environmental Health, should be added, with respect to any potential impacts to the landfill's cover during the course of the project.

D-15 12. ES-16 3.5 Geology and Soil - Recommend adding GHG-3 – Potential for seismic event induced ground movement (e.g. lateral movement toward channel due to liquefaction, landfill slope failure) exacerbated by combined activities such as dewatering and increasing the depth of the channel.

D-16 13. ES-16 3.7 Hazards and Hazardous Materials - There is currently no discussion of responses to be taken in the event that municipal waste is be excavated/exposed, or if any leachate seeps or gas emissions occur as a result of project activities. Please add one.

14. ES-16 3.8 Hydrogeology, Geomorphology, and Water Quality - Please add a fourth impact on dealing with a potential impact (e.g. leachate seep) that is not subject to simple remediation prior to the start of the project. D-17
15. Page ES-17 3.8 Impact HYD/WQ-3 - Please forward copies of Phase I and II Environmental Site Assessments and any Remediation Actions to the City for review and comments. D-18
16. Page 2-17, bottom paragraph - Add City of Sunnyvale Public Works Department. D-19
17. 2-47 - The cross section (Figure 2.7) referred to as being for the East Channel appears to be for the West Channel. A cross section should be shown, to scale, for both the west and the east channel, showing the gradient of the finished slopes. Note there is a ditch to the west of the East Channel that will make the further steepening of this slope a challenge without the toe of the slope extending beyond the Right-of-Way and entering the ditch or impacting a monitoring well. D-20
18. Page 2-61 Table 2-4, Sunnyvale East Channel, first line item - Revise Fig 2-3d to 2-3e (typo); Identify property owners where easements/staging areas are needed. D-21
19. 2-63 Construction Phasing - Please recognize the possible constraints due to the 250 – foot setback requirement from active burrowing owl sites during the breeding season (May 1 – August 31). D-22
20. 2-64 Floodwalls and Concrete Crews - It is not clear what exactly is anticipated in the way of parking for the estimated 33 persons/day, as the Rights of Way appear to be within the actual areas where work will be performed for the most part. Keep in mind that the West Hill's lower road must be kept open or an alternative route provided so that this one way road can be utilized at all times by Solid Waste staff as well as State and Local regulators for inspections. Also note that it is not safe to park on the dried grass on the landfill (fire hazard). Parking in the area is in extremely short supply. D-23
21. 2-69 Bridge/Culvert Modifications Bridge Culvert Reconstruction - More thoroughly explain the sequence/phasing of the construction of the maintenance road and ramps on the west side of the west channel, in light of the fact that the toe of the fill to be placed on the west side of the western channel will toe at the approximate midline of the existing lower perimeter road at the base of the West Hill, precluding its use. With the project activities proposed to be occurring on the levee road, please explain how you will be able to provide a safe means of using it, the ramps and the West Hill's perimeter (lower) road. D-24
22. Page 2-71 - Table 2-5 Other Modifications - Add a line item to replace existing and install new flap gates (where deemed applicable) at the outfall pipes from local system. Add a paragraph for discussion, such as, identity how many existing outfall pipes entering into the channels and how the Project would or would not cause environmental impact to the outfall pipes with or without flap gates. Discuss when the flap gates close due to high flood elevation how the local streets would be flooded/protected with or without environmental impact. D-25

D-26 23. Page 2-73 - Construction Materials and Page 2-74, Table 2-6 - Project Material On-site Reuse: Confirm that the existing excavated soil/earthen materials are environmentally safe to be re-used for the fill of flood walls ramps, flood walls, maintenance road and levee raising. See Table 2-5, Page 2-67, floodwall ramps and Page 2-68, Levee Modifications, Maintenance Road Modifications, where fill materials are identified.

D-27 24. Page 2-74 Table 2-6 Project Material Exports, Vegetation - Consider adding trees, shrubs, etc.

D-28 25. Page 2-75 Relocation of Existing Utilities - Please confirm that any utility relocation associated with City facilities are at the expense of the District.

D-29 26. Page 2-77 Table 2-7 Local Agencies, City of Sunnyvale - Add Land Acquisition, Easement Deed to the list.

D-30 27. Page 2-92 WQ-20, Control Unplanned Discharges - Should a line item be added to "Identify illegal discharge"?

D-31 28. Page 2-100, UT-1- Identify which plans or drawings or document would show the locations of those temporary sanitary facilities.

D-32 29. 2-80 Biological Resources - The City has a wildlife consultant who has been working on the site for 13-plus years, primarily with respect to enhancement of the site for burrowing owls. Please propose an arrangement that will allow the District's consultant to benefit from the site-specific knowledge of our consultant.

D-33 30. 2.5.2 No mention of homeless encampment mitigation or impacts. Stretch along SV East from Lakehaven to Tasman in particular is known to be inhabited by several homeless encampments.

D-34 31. 2.5.2 Does not include storm outfall gates - should also include and/or describe continued maintenance of debris, sediment, and/or vegetation in front of flap gates for on-going operation as designed

D-35 32. Page 3.12-16 - If project requires temporary closure of Carl Road, the project is required to provide an alternate route. The EIR states that the City must find an alternative route. The volumes described are a minimum and increase significantly when maintenance work is being performed. The EIR indicates there are only three trips a day however with certain contracts there are many more. Levee repairs, pump/pipe repairs, Synagro contract. Etc. The Plant needs temporary and permanent access to the ponds and outfall.

D-36 33. 3.1-6 What are the construction impacts to Bay Trail and access from Carl Road?

D-37 34. 3.1-6 What are construction impacts to the plant and plant access?

D-38 35. Fig. 3.1-6 City Access to the WPCP Outfall looks cutoff.

D-39 36. 3.12-16 3.13-5 Are there any increased flows to Sunnyvale Storm Pump Station #1? Any impact on PS#1 ability to discharge?

D-40 37. 3.13-5 Should say 330 miles of storm drainage piping instead of 150.

D-41 38. 3.13-7 Other Utilities. Please include the fact that PG&E has a 36" diameter high pressure natural gas line that is largely located along the Caribbean side of the site, and

turning north near the southeast corner of the landfill for a distance before turning east and crossing the East Channel. D-41 cont.

39. 3.13-8 Some of these utilities cannot afford to be out of service like water, sanitary sewer, recycled water, irrigation, power, fiber etc. D-42

Figures

40. Fig 2-3a Site 1 on map is discharge area for SV Storm Pump Station #1. Again, any impact on ability to discharge? D-43
41. Fig 2-3g Sanitary sewer line adjacent to SV East Channel (may actually be in the west embankment of the Channel). Any conflict with sediment removal and rock slope protection as mentioned in these sections? Sanitary sewer line runs along Channel from Central Expressway to Wolfe. D-44

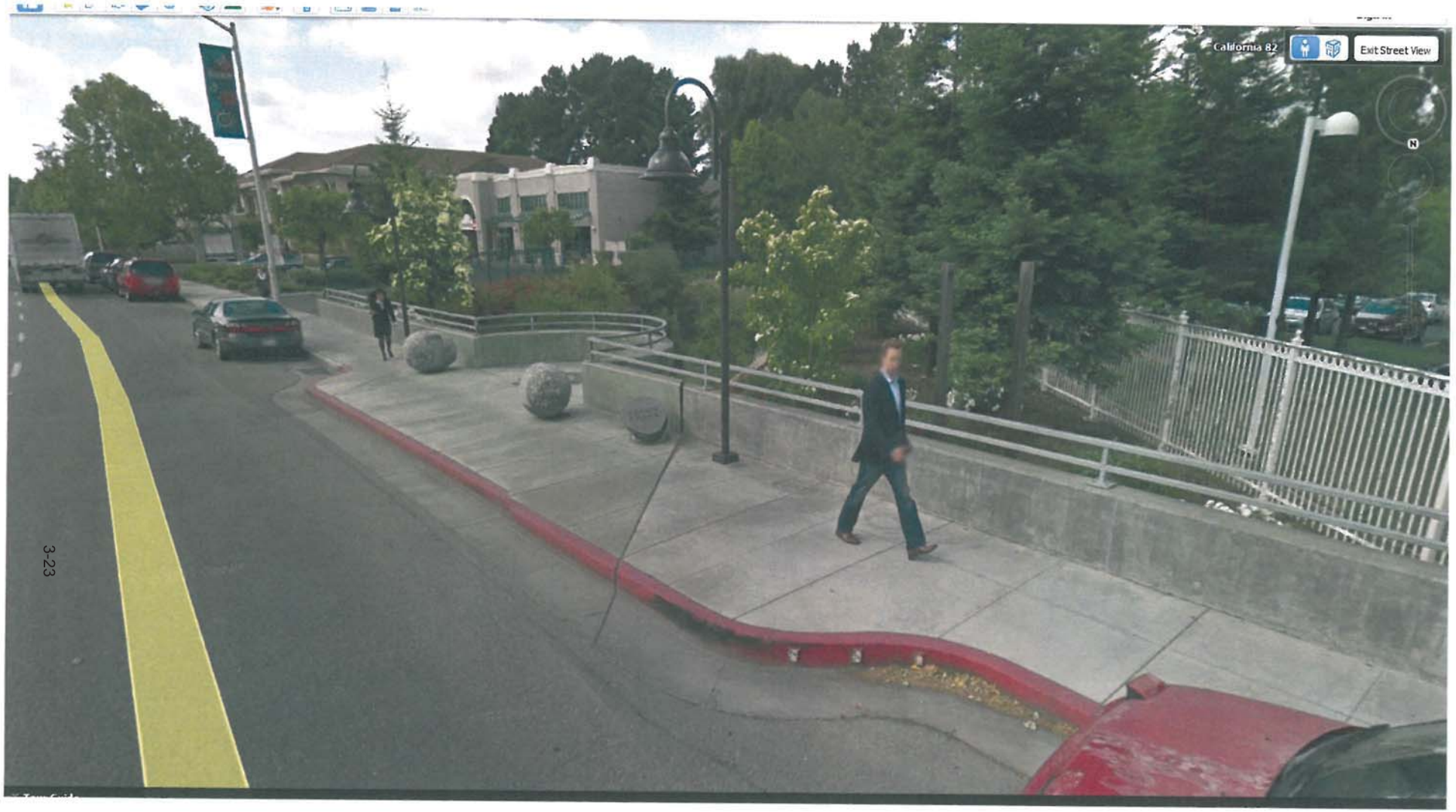
If you have any questions please don't hesitate to contact me at (408) 656-6480.

Regards,

Manuel Pineda
Assistant Director of Public Works
City of Sunnyvale

Attachments

Matadero Creek at Lewis Road, Palo Alto



Adobe Creek Bridge @ El Camino, Palo Alto

Comment Letter D – Pineda, Manuel (City of Sunnyvale)

Response to Comment D-1

The DEIR described that certain portions of the channel maintenance roads would be paved. However, the DEIR did not specifically disclose that these paved areas would be paved for the purpose of recreational use as part of the City of Sunnyvale's 2006 Bicycle Plan (City of Sunnyvale 2006). After Project construction, paved maintenance roads along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive would be open to the public for recreational use.

See Response to Comment A-1 for further details on the DEIR changes related to recreational trails incorporated into the Proposed Project.

Response to Comment D-2

As described in the last paragraph on DEIR Chapter 2 page 2-37, the proposed floodwalls along the Bay Trail would be textured with approximately 2-inch vertical corrugated ribbing, similar to the texture used on concrete walls for the Guadalupe River Downtown Flood Protection Project in Guadalupe River Park. Evaluation of aesthetic impacts due to the proposed floodwalls and floodwall treatment in the "open space Baylands zone" is provided in DEIR Section 3.1, "Aesthetic Resources" Impact AES-2: Permanent Alteration of the Visual Character or Quality of the Project Area, including Scenic Vistas from Floodwalls. As discussed in the DEIR, the proposed floodwalls would not significantly impact the visual character or quality of the project area.

The DEIR description of the proposed headwalls in Chapter 2 page 2-55 has been modified to reflect that the headwalls for the proposed Caribbean Drive bridge replacement and the Carl Road culvert replacement will receive special design considerations. Art panels including visual architectural features will be incorporated into the headwalls. Examples of such features are seen at the Adobe Creek crossing at El Camino Real in Palo Alto or the Matadero Creek crossing at Lewis Road in Palo Alto. The headwall designs will be subject to approval by the City of Sunnyvale and the District.

Impact AES-2: Permanent Alteration of the Visual Character or Quality of the Project Area, Including Scenic Vistas from Floodwalls has been updated to reflect the proposed headwalls at the Caribbean Drive bridge replacement site and the Carl Road culvert replacement site. See FEIR Chapter 4, Impact AES-2 for changes to DEIR page 3.1-36, the first paragraph under "Floodwalls in Open Space Baylands Zone" and to DEIR page 3.1-40, the first paragraph under "Conclusion".

Graffiti removal is a standard practice conducted by the District as part of its Stream Maintenance Program. See DEIR Chapter 2, Section 2.5.2 and DEIR Appendix C for a description of the Stream Maintenance Program. Graffiti removal is also discussed in the Aesthetics Analysis (Chapter 3.1) on page 3.1-29 under "Methodology."

Response to Comment D-3

The Proposed Project was designed based on the partial closure of Caribbean Drive during the Caribbean Drive Bridge Replacement, per direction from the City of Sunnyvale that full closure of Caribbean Drive would not be acceptable. Partial one-lane closure of Caribbean Drive was analyzed in the Traffic and Transportation Section 3.12.4 of the DEIR. The level of service (LOS) for Caribbean Drive under partial closure conditions is shown in Table 3.12-5 for three intersections along Caribbean Drive. The lane reduction is not expected to significantly degrade the intersection operation to exceed the LOS standard (LOS D). There may, however, be slight increase in travel time during construction.

Response to Comment D-4

The Project will not interfere with business parking capacity with respect to project-related vehicles and equipment parking. Contractors may only use designated staging areas or areas within the Project right-of-way (ROW) for parking employee vehicles and construction equipment. The staging areas will be acquired for the Project. The Project will not permit contractor employees or construction equipment to be parked outside of the Project ROW.

As discussed in Section 3.12, "Traffic and Transportation" Impact TR-4, the Project will require Temporary Construction Easements (TCE) that may temporarily make a small portions of one parking lot unavailable at TCE Site 9, which is a property owned by the City and County of San Francisco (see DEIR Figure 3.9-1 for the property location). The Temporary Construction Easement at Site 9 would be used for 3 to 6 months. Only a small portion of one specific parking lot would be affected, and use of this parking lot will be negotiated with the property owners so that any businesses or the public would be minimally affected by construction activities. Access to the parking lot will remain the same.

Response to Comment D-5

Haul routes and specific traffic controls will be developed in conjunction with the City, as described in Mitigation Measure TR-1: *Develop and Implement a Site-Specific Traffic Control Plan,* on page 3.12-17. The District will develop a site-specific traffic control plan that will be approved by the City of Sunnyvale. To reduce traffic and related impacts during Project construction, the District will restrict truck access to truck routes designated by the City. Heavy construction vehicles will be prohibited from accessing the

Project Site from other routes. The District also will limit truck access to the Project site to between 7:00 a.m. and 6:00 p.m. and restrict the amount of truck traffic on residential streets. A number of other mitigating actions are described in Mitigation Measure TR-1.

Response to Comment D-6

Easements are identified and evaluated in the DEIR Chapter 2 Table 2-4: Proposed Permanent and Temporary Property Acquisitions on page 2-61. This EIR will provide full CEQA coverage for those easements.

Response to Comment D-7

The City of Sunnyvale is responsible for operation and maintenance of storm outfall and flap gates. Flap gates are used to prevent localized flooding and are designated as City of Sunnyvale property. Areas downstream of storm outfalls are the responsibility of the District for continuing operation and maintenance of the flood control channel, such as clearing brush.

Response to Comment D-8

The Project will replace flap gates in-kind on outfalls that are impacted by construction. This would have no impact on City maintenance needs. All storm drainage systems including storm outfalls and flap gates are the City of Sunnyvale property and the City of Sunnyvale is responsible for operation and maintenance. Since the District is not responsible for these elements, any operation and maintenance activities are outside of the Project.

Response to Comment D-9

Staging areas are identified and evaluated in the EIR. Temporary Construction Easements/Staging Areas are shown in Figures 2-3a through 2-3i, on pages 2-19 through 2-36. The majority of proposed Project work would occur within the District's ROW. However, as stated in the property acquisitions discussion in DEIR Chapter 2, page 2-61, the District does not have adequate ROW to accommodate all of the proposed floodwall construction work. Therefore, temporary and permanent property acquisitions for floodwall construction and project staging are needed. The proposed temporary and permanent property acquisitions outside District ROW are listed in Table 2-4.

Property ownership and land use conflicts with proposed project work outside of the District's ROW are discussed in Chapter 3.9 "Land Use and Planning." As described in this section, illustrated in Figure 3.9-1, and listed in Table 3.9-1, five parcels owned by the City of Sunnyvale would be affected by the proposed project. Portions of two City of Sunnyvale parcels would be acquired permanently, and portions of three other City of Sunnyvale parcels would be acquired temporarily for project construction.

The DEIR adequately discloses proposed staging activities outside the District's ROW, including ROW owned by the City of Sunnyvale.

Response to Comment D-10

Chapter 3.10 "Noise and Vibration" of the DEIR contains a complete discussion of potential noise and vibration impacts to residents from the Proposed Project.

Response to Comment D-11

The Santa Clara County Department of Environmental Health is the Local Enforcement Agency (LEA) with authority to implement corrective action plans issued by the state Regional Quality Control Board. The LEA will approve the Proposed Project and work with the District to ensure there would be no impact on the City of Sunnyvale's Landfill, leachate system, monitoring wells, site access, or the Landfill's Water Corrective Action Plan.

Response to Comment D-12

Table ES-1 *Proposed Project Regulatory Permits, Approvals and Consultations* on page ES-7, and Table 2-7 (same title) on page 2-76, are the same table. These tables have been updated to include the Santa Clara County Department of Environmental Health and Local Enforcement Agency authority related to the City of Sunnyvale Landfill, under Local Agencies (see Response to Comment D-14).

CalRecycle has not been added to these tables because the Santa Clara County Department of Environmental Health is the Local Enforcement Agency who will approve the Proposed Project and work with the District to ensure there would be no impact on the City of Sunnyvale's Landfill or the Landfill's Water Corrective Action Plan.

Response to Comment D-13

Table ES-1 *Proposed Project Regulatory Permits, Approvals and Consultations*, on page ES-7, and Table 2-7 (same title), on page 2-76, are the same table. These tables have been updated to include Land Acquisition and Easement Deed approvals/issuances, required for floodwall construction and construction staging, under Local Agencies, City of Sunnyvale (shown below).

Table ES-1. Proposed Project Regulatory Permits, Approvals and Consultations

Agency	Permit / Approval / Consultation	Project Activities
Local Agencies		
City of Sunnyvale	Municipal Code Section 13.08.030 – Encroachment Permit	Permanent and temporary acquisition of easements from City of Sunnyvale
	Land Acquisition	Floodwall construction and construction staging
	Easement Deed	Floodwall construction and construction staging
	Municipal Code Section 13.16.060 – Tree Removal Permit	Removal of City of Sunnyvale trees during construction
	Municipal Code Section 10.40.080 – Truck Traffic	Temporary traffic controls and lane closures, and equipment haul routes on City of Sunnyvale streets.

Response to Comment D-14

Table ES-1 *Proposed Project Regulatory Permits, Approvals and Consultations* on page ES-7, and Table 2-7 (same title) on page 2-76, are the same table. These tables have been updated to include the Santa Clara County Department of Environmental Health and Local Enforcement Agency authority related to the City of Sunnyvale Landfill, under Local Agencies (shown below).

Table ES-1. Proposed Project Regulatory Permits, Approvals and Consultations

Agency	Permit / Approval / Consultation	Project Activities
Local Agencies		
Santa Clara County Department of Environmental Health	Local Enforcement Agency (LEA) letter of approval per Title 27 of the California Code of Regulations (27 CCR), Section 21870. LEA review and approval to ensure the site compliance with CCR Sections 21180 - Postclosure Maintenance, 21190 - Postclosure Land Use and 21780, 21830, and 21840 relating to the approved Closure and Postclosure Maintenance Plan for the City of Sunnyvale Landfill.	Proposed grading, culvert replacement and floodwall construction immediately adjacent to the City of Sunnyvale Landfill.

Response to Comment D-15

The Project does not propose to increase the depth of any portions of the East or West Channels. Construction activities such as dewatering would not induce a seismic event or ground movement. Potential effects due to seismic events are discussed in Impact GEO-1: *Potential Adverse Effects from Fault Rupture, Earthquake-Induced Liquefaction, Seismic Settlement, or Channel Slope and Levee Instability,* on page 3.5-8 of the DEIR.

Response to Comment D-16

This comment was provided due to concern that project construction would disturb the clay cap of the City of Sunnyvale Landfill. The Sunnyvale Waste Water Treatment Plant staff initially requested an 18-foot emergency alternative access road from Caribbean Drive to their plant. The District held a meeting on January 29, 2014 with representatives from the City of Sunnyvale, the Santa Clara County Department of Environmental Health, and the Bay Area Air Quality Management District to discuss the Proposed Project. During this meeting, project designs for the reach of channel between Carl Road culvert replacement and West Caribbean Drive were adjusted to avoid potential disturbance of the landfill. Specifically, the proposed maintenance road on the west side of the Sunnyvale West Channel between West Caribbean Drive and Carl Road (see DEIR Figure 2-3b) has been reduced in width from 18 feet to 12 feet. The narrower road will require less space to construct and will not affect landfill monitoring and remediation activities throughout the construction period; the District will provide access to all landfill monitoring sites throughout Project construction.

With these agreed upon project changes, the City and LEA's concerns have been addressed. The Proposed Project will not excavate or expose municipal waste, disturb the City of Sunnyvale Landfill cap, or affect the City's landfill monitoring and remediation efforts. Potential effects of encountering leachate seeps during project construction are discussed in Response to Comment D-17.

Response to Comment D-17

As noted in the comment, proposed project construction activities would be located in close proximity to the City of Sunnyvale Landfill, which was closed in 1994. In accordance with San Francisco Bay Regional Water Quality Control Board (RWQCB) Waste Discharge Order No. R2-2004-0030, the landfill is subject to a corrective action program requiring hydraulic capture of groundwater beneath and around the landfill and treatment of the captured water at a wastewater treatment plant; water containing leachate is not allowed to be discharged to waters of the U.S and state. The City developed a Corrective Action Program and Water Quality Monitoring Plan in 1995 to ensure protection of surface water and groundwater from landfill leachate contamination. The monitoring program includes monitoring and reporting of groundwater, leachate, and surface water conditions at over 40 locations in and around the landfill, and landfill

gases. Some of the landfill monitoring wells and surface water monitoring sites are located within the Sunnyvale Channels Proposed Project area.

The landfill monitoring program has been implemented since 1995 and the most recent annual report was submitted to the RWQCB in April 2014. According to the 2013-14 annual report, these compounds were not detected in groundwater at levels exceeding USEPA Freshwater or Saltwater Estuarine Water Quality Criteria applicable to San Francisco Bay, and concentrations were within the range detected in the past. No VOCs were detected in surface water samples tested in 2013. There have been no violations of the landfill permit and annual inspections of the site indicate that leachate and gas capture systems are functioning. (Ulrick & Associates 2014[1])

DEIR Section 3.7 "Hazards and Hazardous Materials" and Section 3.8 "Hydrology, Geomorphology, and Water Quality" describe the landfill as a known hazardous waste site and identified that the Proposed Project would not disturb the landfill or its contaminants.

The District and City met in January 2014 to discuss comments on the DEIR and the Proposed Project. Additional information was provided regarding the City's comments related to the landfill and movement of leachate. The City raised a concern about the potential for landfill leachate seepage to be drawn into surface waters in the Sunnyvale Channels during construction dewatering for installation of new culverts, therefore resulting in a violation of the City's Corrective Action Program and Water Quality Monitoring Plan and their RWQCB discharge permit. Additionally, the City is concerned about handling and treatment of potentially contaminated water removed from the construction work areas.

To investigate these concerns, the District contacted Mr. James Ulrick of Ulrick & Associates, who is the consulting engineering geologist/hydrogeologist who monitors the groundwater conditions at the landfill site on behalf of the City. In his expert opinion, the landfill's leachate collection and treatment system is functioning as designed. As a result no landfill contaminants should be present in the Sunnyvale Channels. Channel dewatering proposed by the Project should not substantially influence groundwater conditions or landfill leachate movement (Ulrick pers. comm.[2]). Additionally, the channels adjacent to the landfill have high ground water levels and experience daily tidal fluctuations. These physical conditions would not change as a result of the Project and groundwater gradients are not anticipated to change due to the Project. This means that if the landfill site is stable and there is presently no movement of contaminated water into the Sunnyvale Channels due to the daily tidal fluctuations, than no activities of the Project would cause such a process to occur. It is currently assumed that the landfill is

[1] Ulrick & Associates. 2014. 2013-14 Annual Self-Monitoring Report Corrective Action Program-City of Sunnyvale Landfill. Prepared for City of Sunnyvale. April 30, 2014. Orinda, CA.

[2] Personal Communication: Ulrick, James.2014. (Ulrick & Associates) pers. comm. via email to Patrick Stanton (SCVWD) July 10, 2014.

performing according to the requirements of the RWQCB and Corrective Action Plan, and no such contamination is leaching into the Channels.

Construction of the Proposed Project would not impact landfill leachate movement. Therefore, there is no need to add a fourth impact discussion to the DEIR. The DEIR adequately disclosed potentially hazardous sites in proximity to the Proposed Project, and includes BMPs and mitigation measures to prevent discharges of contaminated water during Project construction. However, additional detail regarding the landfill and regulatory requirements related to leachate monitoring and treatment have been added to the DEIR, as shown below. Additionally, a standard District BMP measure, BMP WQ-30, was inadvertently left out of the DEIR. This measure has been added to the DEIR and will be implemented along with the District's standard BMPs. The level of significance for Impact HYD/WQ-3 remains as less-than-significant with mitigation.

The following text has been added to DEIR Section 3.8, Impact HYD/WQ-3: *Water Quality Impacts due to Discharge of Contaminated Soil or Groundwater* starting on page 3.8-49.

> Current documentation of contaminated soil and groundwater in the Project Area was reviewed for this EIR, as described in Chapter 3.7, "Hazards and Hazardous Materials." Three open, actively leaking underground fuel tanks (LUFTs) are located within 1,000 feet of the Sunnyvale Channels (SWRCB 2012). Remediation of soil and shallow groundwater contaminated by VOCs is occurring at a site located at 141 Caspian Court, adjacent to the West Channel upstream (south of) Caribbean Drive. The City of Sunnyvale ~~Landfill~~ is responsible for monitoring and treatment of VOC-contaminated groundwater leachate from the Sunnyvale Landfill in compliance with RWQCB Order No. R2-2004-0030 and the landfill Corrective Action Program and Water Quality Monitoring Plan (SCVWD 2013a). No VOCs were detected in surface water samples adjacent to the landfill, as tested in 2011. There have been no violations of the landfill permit conditions and annual inspections of the site indicate that leachate and gas capture systems are functioning (Ulrick & Associates 2012). High levels of TCE and other VOCs are present in soil and shallow groundwater due to contamination from the Middlefield Ellis Whisman and Moffett Field Superfund Sites located in Mountain View (SCVWD 2013b). While existing hazardous materials contamination has not been identified specifically within the Project Area or the Sunnyvale Channels (as shown in Figure 3.7-1), the presence of historic and existing hazardous materials in the Project vicinity indicate that previously undiscovered contaminated soil and groundwater may occur in the Project Area.
>
> *Water Discharges*
>
> As discussed in the "Environmental Setting" section above and shown in Table 3.8-5, groundwater is present within or just beneath the bed of the Sunnyvale Channels at different locations and during different times of the year. Groundwater in the Project Area is considered relatively shallow and is perched (above the channel bed) in portions of the channels during certain times of the year (see Table 3.8-5). The

District proposes to dewater in-channel construction sites before commencing construction work in the channel. Dewatering generally involves first isolating the reach where in-channel construction would occur, and then pumping the isolated water out of that reach and discharging it downstream from where construction is occurring. If groundwater is directly supplying the channel (the channel bed is lower than the groundwater table), then dewatering the channel reach could result in pumping of contaminated shallow groundwater from existing contaminated sites adjacent to the work area, including from the Sunnyvale Landfill. The discharge of contaminated groundwater to downstream reaches of the Sunnyvale Channels could significantly impact water quality in the channels and downstream receiving waters. Discharge of Sunnyvale Landfill leachate to the Sunnyvale Channels would violate conditions of the City of Sunnyvale's landfill discharge permit (RWQCB Order No. R2-2004-0030). Additionally, discharge of sediment-laden water (water that contains high concentrations of suspended solids or high turbidity) could significantly impact water quality in the channels and downstream receiving waters. As discussed below, the District would implement BMPs to prevent discharges of contaminated water during construction.

Applicable Best Management Practices (Page 3.8-51)

The District would implement the following BMPs to minimize water quality impacts during Project construction activities. Full text for each BMP is provided in Table 2-8 in Chapter 2, "Project Description."

BMP HM-9: Clean Vehicles and Equipment
BMP HM-10: Assure Proper Vehicle and Equipment Fueling
BMP HM-11: Assure Proper Vehicle and Equipment Maintenance
BMP HM-12: Assure Proper Hazardous Materials Management
BMP HM-13: Prevent Spills
BMP HM-14: Know the Spill Kit Location
BMP WQ-1: Conduct Work from Top of Bank
BMP WQ-2: Evaluate Use of Wheel and Track Mounted Vehicles in Stream Bottoms
BMP WQ-3: Assess Pump/Generator Set Operations and Maintenance
BMP WQ-4: Handle Sediments so as to Minimize Water Quality Impacts
BMP WQ-5: Avoid Runoff from Soil Stockpiles
BMP WQ-6: Stabilize Construction Entrances and Exits
BMP WQ-10: Evaluate and Select the Most Appropriate Use of Concrete Near Waterways
BMP WQ-11: Use Coffer Dams for Tidal Work Areas
BMP WQ-12: Divert/Bypass Water at Non-tidal Sites
BMP WQ-15: Manage Groundwater at Work Sites
BMP WQ-16: Avoid Erosion When Restoring Flows
BMP WQ-19: Control Emergency Discharges
BMP WQ-20: Control Unplanned Discharges
BMP WQ-24: Evaluate Use of Discharge Flow Paths – Check Filters
BMP WQ-25: Evaluate Use of Discharge On-Line Filter Systems
BMP WQ-27: Evaluate Use of Discharge Surface Protection - Armoring
BMP WQ-28: Evaluate Use of Discharge Surface Protection – Flow Diversion
BMP WQ-29: Evaluate Use of Discharge Storm Drain Curb & Drop Inlet

Protection
BMP WQ-30: Discharges to Sanitary Sewer System
BMP WQ-40: Prevent Water Pollution
BMP WQ-41: Prevent Stormwater Pollution

Conclusions

Several Project construction activities have the potential to result in temporary changes to the water quality of the Sunnyvale Channels and Pond A4. Project construction activities have the potential to expose and loosen soils, leaving them susceptible to erosion from surface runoff and discharge into surface waters. Direct discharges of highly turbid water to the Sunnyvale Channels could also occur during channel dewatering. Contaminated soil exposed during Project construction could also be discharged into surface waters. Finally, hazardous materials commonly used with construction equipment could spill and be susceptible to discharge into surface waters.

BMPs WQ-11, WQ-12, WQ-15, and WQ-16 are channel dewatering procedures to protect water quality in tidal and non-tidal work areas.

BMPs WQ-1, WQ-2, WQ-4, WQ-5, WQ-6, WQ-19, WQ-20, WQ-24, WQ-25, WQ-27, WQ-28, WQ-29, WQ-30, WQ-40, and WQ-41 are measures to avoid and minimize water quality impacts due to ground disturbing activities, including handling of soil and discharges of water from the construction site. BMP WQ-30 specifically describes the procedures for discharging project construction water, such as that dewatered from a work site, to the sanitary sewer for treatment and discharge to the City of Sunnyvale's wastewater treatment plant. As described in the BMP, the District will obtain approval from the City for discharges to the sanitary sewer. Treatment plant approval requires water quality testing to demonstrate that the discharge will not exceed the City's treatment capabilities or discharge regulations. In order to approve the discharge, the discharge must not:

A) Exceed the discharge pollutant limits in Sunnyvale Municipal Code Section 12.12.120 (Available: http://qcode.us/codes/sunnyvale/view.php?topic=12-12_12-12_12_120)
B) Create a nuisance or damage the sewer system
C) Endanger workers in the sewer system or at the Water Pollution Control Plant

BMPs HM-9, HM-10, HM-11, HM-12, HM-14, and HM-14 are measures to prevent against accidental discharge of hazardous materials associated with construction equipment. These measures also include procedures for proper clean up and reporting if an accidental spill occurs.

BMP WQ-10 is a measure to ensure concrete pouring activities do not impact water bodies.

The use of the above BMPs would reduce potentially significant impacts on water quality due to Project construction activities. However, these BMPs would not reduce potential water quality impacts due to handling and discharge of

contaminated soil and groundwater encountered during construction. To reduce this potentially significant impact to a less-than-significant level, the District would implement the following MMs to reduce the potential for exposure and release of contaminated soil and groundwater encountered during construction.

> **Mitigation Measure HM-1: Conduct a Phase I and Phase II Environmental Site Assessments and Implement Site Remediation Actions Prior to Construction**
> Refer to Chapter 3.7 "Hazards and Hazardous Materials" Impact HM-1 for the full text of this MM.

The implementation of MM HM-1 would identify the extent of existing contaminated soil and groundwater and ~~implement measures in accordance with regulatory procedures~~measures to ensure Project construction activities would protect the environment and prevent against threats to public health and safety. With the implementation of this MM, potential impacts on water quality would be reduced to a less-than-significant level.

Response to Comment D-18

As stated in Mitigation Measure HM-1: *Potential Release of Existing Contaminated Soil and Groundwater Discovered during Project Construction Activities and Resulting Exposure to Construction Workers, the Public, or the Environment*, the Phase I and II ESAs will be forwarded to the Local Enforcement Agency (County), per SWRCB requirements. The District will work with the City of Sunnyvale to ensure that they are provided with appropriate copies of reports. The City of Sunnyvale can also request the reports from the County.

Response to Comment D-19

The City of Sunnyvale Public Works Department has been added to the last paragraph on page 2-17.

Response to Comment D-20

The figures in the Project Description are illustrative and are not meant to reflect actual conditions. The project engineering designs, which contain complete details of proposed improvements and modifications and exact locations of project components, are available for review upon request to the District.

Response to Comment D-21

Table 2-4. *Proposed Permanent and Temporary Property Acquisitions* has been amended to read Fig 2-3e: Site 10 in the first row under Sunnyvale East Channel in the Figure#/Site ID column, instead of Fig 2-3d: Site 10 (shown below).

Table 2-4. Proposed Permanent and Temporary Property Acquisitions

Figure #/ Site ID	Type of Property Acquisition	Acreage Acquired	Duration of Acquisition
Sunnyvale East Channel			
Fig 2-3~~d~~e: Site 10	Permanent Easement	0.59	Permanent

Property owners for proposed acquisitions and staging areas are listed in Table 3.9-1. *Project Property Acquisitions Adjacent to the Sunnyvale West Channel*, on page 3.9-11 in Chapter 3.9 *Land Use and Planning*.

Response to Comment D-22

Impact BIO-8: *Impacts on Burrowing Owls*, on page 3.3-73, in Chapter 3.3 *Biological Resources*, discusses potential impacts to burrowing owls from the Proposed Project. As described in Impact BIO-8, Mitigation Measures BIO-6: *Conduct Pre-Construction Surveys for Burrowing Owls*, BIO-7: *Implement Buffer Zones for Burrowing Owls*, and BIO-8: *Monitor Owls during Construction* would be implemented to reduce potential harm to burrowing owls during construction.

Mitigation Measure BIO-7 would establish a 250-foot buffer around occupied burrows during the breeding season (generally February 1 to August 31), within which no new Project-related activities would be permissible. Mitigation Measure BIO-7 also would establish a 150-foot buffer zone around occupied burrows during the non-breeding season (generally September 1 to January 31), if feasible. This measure has been revised as follows to clarify when a 250-foot buffer is required.

> If burrowing owls are present during the non-breeding season (generally September 1 to January 31), a 150-foot buffer zone shall be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, a reduced buffer and monitoring may be implemented as described under MM BIO-8~~then the buffer must be great enough to avoid injury or mortality of individual owls~~, or else the owls should be passively relocated as described in MM BIO-9~~below~~. During the breeding season (generally February 1 to August 31), a 250-foot buffer, within which no new Project-related activities will be permissible, will be maintained between Project activities and occupied nests~~burrows~~. Owls present between February 1 and August 31 will be assumed to be nesting,~~, and the 250-foot protected area will remain in effect until August 31. If~~ unless monitoring evidence indicates that the owls are no longer nesting, ~~or~~ the young owls are foraging independently, or only a single owl (rather than a breeding pair) is present after July 1st and there is no evidence that young owls are present. If no active nesting is occurring, the buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.

Response to Comment D-23

Contractors may only use designated staging areas or areas within the Project ROW for parking employee vehicles and construction equipment. The staging areas will be acquired for the Project. The Project will not permit contractor employees or construction equipment to be parked outside of the Project ROW. Impacts to traffic and parking were evaluated in Section 3.12, "Traffic and Transportation" of the DEIR. During construction on the west bank levee of the West Channel in the vicinity of the Sunnyvale Landfill, vehicles needing access will be expected to temporarily make a U-turn since continuous access is not practical during the construction of the levee. Also, see Response to Comment D-16 in regards to access to the landfill during project construction.

Response to Comment D-24

See Responses to Comments D-16 and D-23 in regards to access to the landfill during project construction. The District informs Project Contractors about specific constraints regarding the Project. The District does not specifically describe how these constraints must be implemented during Project work; it is up to the Contractor to determine how to accomplish the Project work within the constraints. Therefore, at this time further sequencing detail is not available. The Sunnyvale Waste Water Treatment Plant staff initially requested an 18-foot emergency alternative access road from Caribbean Drive to their plant, but in January 2014 they withdrew that request. Therefore, the lower perimeter road at the base of the landfill's west hill will remain open throughout construction with no impacts to any workers, inspectors, or regulators during the construction of the levee. All of the new west levee on the West Channel will be constructed in the District's existing right of way.

Response to Comment D-25

See Response to Comment D-8.

Response to Comment D-26

Impact HM-1: *Potential Release of Existing Contaminated Soil and Groundwater Discovered during Project Construction Activities and Resulting Exposure to Construction Workers, the Public, or the Environment,* on page 3.7-14-18 of the DEIR, in Chapter 3.7 *Hazards and Hazardous Materials*, describes potential impacts to workers and the public due to exposure and handling of contaminated soil, and mitigation measures prescribed to reduce those impacts. To ensure that the existing soil and earthen materials to be used for the fill of floodwalls, floodwall ramps, and other project components are safe, the District will conduct Phase I and Phase II Environmental Site Assessments (ESAs) and implement Site Remediation Actions prior to construction.

As described in Mitigation Measure HM-1: *Conduct a Phase I and Phase II Environmental Site Assessment and Implement Site Remediation Actions Prior to*

Construction, the District will ensure that a qualified contractor conducts a Phase I and Phase II ESA prior to excavation activities at excavation sites along the entirety of the West Channel and at excavation sites along the portion of the East Channel between East Evelyn Avenue and Highway 101 in accordance with applicable regulations. These tests will indicate whether hazardous substances are present at excavation sites. If the conclusions of the Phase II ESA indicate that soil or groundwater remediation are necessary to protect human health and the environment, the District will enter into a voluntary Remedial Action Agreement with the Santa Clara County Department of Public Health. The Remedial Action Agreement would ensure proper site remediation and soil and water handling procedures prior to conducting excavation or dewatering activities.

Response to Comment D-27

Trees and shrubs that may need removal as part of the Project are considered in the amount of material exported as vegetation. Vegetation removed by the Project may be reused, recycled, composted, or disposed at a landfill. It is typical for trees and shrubs to be chipped to create reusable mulch.

Response to Comment D-28

The cost associated with relocation of existing utilities depends on agreements and permits that are in place with the specific utility. Relocation costs vary depending on the location of the utility. If the utility is covered by a franchise agreement, the utilities would be relocated at the expense of the utility owner. Many of the utilities located in streets are managed through franchise agreements with the City of Sunnyvale. The District will evaluate the party responsible for any utility relocation and costs on a case-by-case basis.

Response to Comment D-29

See *Response to Comment D-13.*

Response to Comment D-30

Illegal discharges would not be addressed as part of this project. However, if illegal discharges are observed during project construction, the District will notify the proper authorities.

Response to Comment D-31

There are currently no temporary sanitary facilities proposed for the Project. Therefore, there are no temporary sanitary facilities shown in any figures. BMP-UT-1 will be implemented as part of the Project in the event that a temporary sanitary facility is required which is not yet envisioned to be necessary.

Response to Comment D-32

The District will consult with City of Sunnyvale staff regarding the need, and if necessary the arrangements, to use the City's biologist consultant who is familiar with the Project site.

Response to Comment D-33

Homeless encampments are the responsibility of local law enforcement. The District is experienced at working with local law enforcement personnel to assist in the removal of homeless encampments when required for public safety and channel maintenance activities.

Response to Comment D-34

See Response to Comment D-8.

Response to Comment D-35

See Responses to Comments D-16, D-23, and D-24 regarding access on the West Channel at Carl Road. Additionally, access impacts to the WPCP and SMaRT Station were disclosed in Impact UTL-3: *Temporary Effects on Operational Vehicle Access to the City of Sunnyvale SMaRT Station and Water Pollution Control Plant (and Associated Facilities)* on DEIR page 3.13-16.

The text in DEIR Chapter 3.12, Impact TR-1 on page 3.12-16 has been updated to be more inclusive of additional trips that may need to be accommodated on the Carl Road to Caribbean reach during Project construction. It also clarifies that the District will coordinate with the City on the number of trips, and the District will provide an alternative route for these employee and maintenance vehicles. The changes are as follows:

> **Vehicle Access during Carl Road Bridge Replacement**
>
> The Carl Road bridge crossing over the West Channel is currently used by the City to access treatment ponds ~~western landfill~~ associated with the City's Water Pollution Control Plant (WPCP), located to the north of this area near Pond A4. To maintain access to the treatment ponds during the bridge replacement, the west bank levee/maintenance road between Carl Road and Caribbean Drive would be constructed prior to the reconstruction of the Carl Road box culvert.
>
> The City of Sunnyvale typically uses the Carl Road to Caribbean reach ~~for approximately three vehicle trips a day~~ to access ancillary facilities associated with the WPCP. During construction of the levee enlargement along the Caribbean reach downstream of Carl Road bridge ~~this reach~~, the SCVWD ~~City~~ ~~would~~ will coordinate the construction schedule with the City and ~~have to find~~ provide an alternative route for ~~these three trips per day~~ employee and maintenance vehicles, as specified in the Mitigation Measure TR-1 below, to access the ancillary facilities. A likely alternative may be conducted by traveling west/north on Caribbean Drive from the WPCP and

then turning west onto 1st Avenue. The detour of WPCP employee and maintenance vehicles ~~three trips per day~~ is anticipated to be short-term and is not expected to significantly degrade the traffic operation ~~have an unnoticeable and unsubstantial effect on existing traffic levels~~ along the detour route to an unacceptable level.

Response to Comment D-36

Potential effects on recreational access is discussed in DEIR Impact REC-1: *Temporary Disturbance of Recreational Areas during Project Construction Resulting in a Loss or Deterioration of Recreational Opportunities*

The Project will implement BMP Measure REC-1 which will establish temporary detour signage and/or trails so that access to officially designated trails such as the Bay Trail is maintained.

Response to Comment D-37

The Project construction impacts to the City's WPC Plant are temporary and identified in several sections of the EIR including noise and air quality. Direct access to the Plant including the parking lot will not be impacted.

Also, see Response to Comment D-35.

Response to Comment D-38

The City of Sunnyvale will have direct access to the existing outfalls as exists in the pre-project conditions. Access should not be cutoff since an outboard floodwall is proposed at the WPC Plant location.

Also, see Response to Comment D-35.

Response to Comment D-39

The Project would not result in increased flows to City of Sunnyvale Storm Pump Station #1. Since this storm pump station is owned by the City of Sunnyvale, the District is not responsible for ensuring that the pump station is capable of discharging based on the flow conditions it has seen in the past or in the future.

Also, see Response to Comment D-8.

Response to Comment D-40

Text has been changed to state 330 miles of storm drainage piping. See FEIR Chapter 4 under Revisions to Chapter 3, Section 3.13.

Response to Comment D-41

The District is aware of PG&E's natural gas pipeline near the Caribbean Drive crossings of the Channels. The PG&E 36" inch gas line is included on the Project design plans. The project designs have been reviewed by and edited based on information provided by PG&E.

Response to Comment D-42

Chapter 3.13 *Utilities and Service Systems* of the DEIR addresses impacts to utilities and service systems from the Proposed Project. As described in this chapter, the Proposed Project has been designed to avoid known underground concrete storm drains, drop inlets, and electrical conduits located within or abutting the channels, such that utilities would not be disturbed (page 3.13-9). The District has designed floodwalls such that excavation would avoid these known utilities.

The Project would affect existing utilities where bridges/culverts would be replaced or culverts would be extended. Table 3.13-2. *Existing Utilities Affected by Project Construction*, on page 3.13-11, provides information on existing utilities that would be affected by the Project. The District would temporarily relocate the majority of utilities affected during the bridge/culvert modifications.

As described in Chapter 3.13, on pages 3.13-13 to 3.13-14, the District would implement several mitigation measures to minimize impacts to utilities and service systems, including Mitigation Measure UTL-1: *Existing Utilities will be Identified and Coordination will be Conducted with Utility Owners before Construction*, Mitigation Measure UTL-2: *Existing Utilities will be Protected during Construction*, and Mitigation Measure UTL-3: *Utility Customers will be Notified before Construction Activities Commence.*

Response to Comment D-43

See Response to Comment D-39.

Response to Comment D-44

The Project is not anticipated to impact the sanitary sewer line adjacent to the East Channel. Therefore there would be no conflict with sediment removal or rock slope protection components of the Project.

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Letter E

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
OAKLAND, CA 94612
PHONE (510) 286-6053
FAX (510) 286-5559
TTY 771

Flex your power!
Be energy efficient!

December 12, 2013

SCLVAR043
SCL/VAR/VAR
SCH# 2013012041

Ms. Tiffany Hernandez
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Dear Ms. Hernandez:

Sunnyvale East and West Channels Flood Protection Project – Draft Environmental Impact Report (DEIR)

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. We have reviewed the DEIR and have the following comments to offer.

Traffic Impact Study (TIS)

One of Caltrans' ongoing responsibilities is to collaborate with local agencies to avoid, eliminate, or reduce to insignificance potential adverse impacts to highway facility operations or traveler safety by local development on State highways. Based on the project location, Caltrans anticipates potential adverse impacts to U.S. Highway (U.S.) 101, Interstate (I-)280, State Route (SR) 85, and SR 237, if and when an intensification of construction traffic-generating activity occurs.

Therefore, a construction TIS or a lesser level of analysis may be required to assess the impact of this particular project on the adjacent road network, with specific attention to the aforementioned four facilities. We recommend using Caltrans' *Guide for the Preparation of Traffic Impact Studies* (TIS Guide) for determining which scenarios and methodologies to use in the analysis. The TIS Guide is a starting point for collaboration between the lead agency and Caltrans in determining when a TIS is needed. It is available at the following website address: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. E-1

If the proposed project will not generate the amount of construction trips needed to meet Caltrans trip generation thresholds, an explanation of how this conclusion was reached must be provided. We encourage you to contact us to coordinate preparation of the scope of the study with our office.

Lead Agency

E-2 As the lead agency, Santa Clara Valley Water District (SCVWD) is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. Since an encroachment permit is required for work in the State ROW, and Caltrans will not issue a permit until our concerns are adequately addressed, we strongly recommend that SCVWD work with Caltrans to ensure that our concerns are resolved during the environmental process, and in any case prior to submittal of an encroachment permit application. Further comments will be provided during the encroachment permit process. Please see the end of this letter for more information regarding encroachment permits.

Transportation Management Plan

E-3 Since it has been determined in the DEIR that a Specific Traffic Control Plan, or Traffic Management Plan (TMP), will be implemented as a mitigation measure (see Table ES-2, page ES-18), the TMP must be prepared in accordance with California *Manual on Uniform Traffic Control Devices.* Further information is available for download at the following web address: http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part6.pdf.

E-4 Please ensure that such plans are also prepared in accordance with the transportation management plan requirements of the corresponding jurisdictions. Also, all existing and operational ramp metering and Traffic Operation Systems (TOS) elements must be kept operational throughout the construction phase of the project. Any ramp metering and TOS elements that may be affected by this project must be relocated, modified or fully replaced as necessary. For further TMP assistance, please contact the District Office of Traffic Management Plans at (510) 286-4647.

Transportation Permit

E-5 Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to: Caltrans Transportation Permits Office, 1823 14th Street, Sacramento, CA 95811-7119. See the following website for more information: http://www.dot.ca.gov/hq/traffops/permits.

Cultural Resources

E-6 Caltrans requires that a project environmental document include documentation of a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if construction activities are proposed within State ROW. Current record searches must be no more than five years old. Caltrans requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, and evidence of Native American consultation to ensure compliance with the California Environmental Quality Act (CEQA), Section 5024.5 and 5097 of the California Public Resources Code, and Volume 2 of Caltrans' Standard Environmental Reference (http://www.dot.ca.gov/ser/vol2/vol2.htm).

These requirements, including applicable mitigation, must be fulfilled before an encroachment permit can be issued for project-related work in State ROW; these requirements also apply to National Environmental Policy Act (NEPA) documents when there is a federal action on a project. Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or adjacent to State ROW. E-6 cont.

Bridges, Trestles, Culverts and Other Structures in Riparian Environments
Some project level activities may affect riparian flow patterns upstream of bridges, trestles, culverts or other structures for which Caltrans holds responsibility. Please ensure your project level environmental documents include hydrological studies to determine whether such impacts will occur, and to identify appropriate mitigation measures. E-7

Please provide Caltrans with the bridge/culvert modification plans (see ES-1, page ES-5) for the SR 237/East Channel crossing for our review. Also, please clarify the planned locations for sediment removal (see ES-1, page ES-5) in close proximity or adjacent to bridge and culvert crossings for U.S. 101, I-280, SR 85, and SR 237 because sediment removal could compromise structure stability of these facilities. Regarding potential impacts (see Table ES-2, page ES-13), GEO-1 and GEO-2 are determined in 3.5 Geology and Soils to be "Less than Significant", whereas the Notice of Preparation (NOP) (see DEIR Appendix A) determined potential impacts to geology and soils to be "Potentially Significant." Please clarify this discrepancy in determinations between the NOP and DEIR for potential geology and soil impacts. E-8 E-9 E-10

Biological Resources
For any potentially significant impacts to biological and/or environmental resources within Caltrans' ROW, Caltrans' District Office of Biological Sciences and Permits should be contacted at (510) 286-7182 for early consultation, preferably prior to the submittal of an encroachment permit application. E-11

Dike and Levee Maintenance, Repair and Upgrade
Activities involving demolition, reinforcement or rehabilitation of dikes or levees on which transportation facilities are built may potentially affect State transportation facilities. Also, built features on top of dikes and levees may contribute additional engineering considerations related to weight loading or compaction. These factors must be addressed through geotechnical and hydrological studies conducted in coordination with Caltrans at the project level. E-12

Habitat Restoration and Management
Project level activities related to habitat restoration and management should be done in coordination with local and regional Habitat Conservation Plans, and with Caltrans where our programs share stewardship responsibilities for habitats, species and/or migration routes. E-13

Sea Level Rise
The effects of sea level rise may have impacts on transportation facilities located in the project area. Executive Order (EO) S-13-08 directs State agencies planning construction projects in areas vulnerable to sea level rise to begin planning for potential impacts by considering a range of sea level rise scenarios for the years 2050 and 2100. Higher water levels may increase erosion rates, E-14

E-14 cont. change environmental characteristics that affect material durability, lead to increased groundwater levels and change sediment movement along shores and at estuaries and river mouths, as well as affect soil pore pressure at dikes and levees on which transportation facilities are constructed. All these factors must be addressed through geotechnical and hydrological studies conducted in coordination with Caltrans.

Encroachment Permit

E-15 Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See the following website for more information: http://www.dot.ca.gov/hq/traffops/developserv/permits.

Should you have any questions regarding this letter, please call Brian Brandert of my staff at (510) 286-5505 or brian.brandert@dot.ca.gov.

Sincerely,

ERIK ALM, AICP
District Branch Chief
Local Development - Intergovernmental Review

c: Scott Morgan, State Clearinghouse

Comment Letter E – Alm, Eric (Caltrans)

Response to Comment E-1

Construction of traffic impacts to US 101, I-280, SR 82, and SR 237 were analyzed in the DEIR on Page 3.12-14 because those freeway segments are Santa Clara Valley Transportation Authority (VTA) Congestion Management Plan (CMP) roadways and were evaluated against VTA's significant threshold of 1 percent for peak-hour capacity. The EIR concluded that construction-related traffic is not expected to significantly degrade the operation or LOS of the freeways. Project construction is expected to generate a combined maximum of about 116 vehicle trips and a combined average of about 74 vehicle trips during peak hour. When the trips are added to the individual freeway segments there would be a maximum of 33 trips per hour and an average of 21 trips per hour. The Project hourly trips, when combined with the individual freeway segments, are below the VTA threshold for CMP roadways and below Caltran's Traffic Impact Study guide threshold of 50 trips per hour on a freeway segment. The text on page 3.12-14, second paragraph has been updated to clarify this threshold:

> As discussed in the "Environmental Setting" section, above, Hwy 101, SR 237, SR 85,and I-280 in the Project vicinity operate at LOS F during the peak hours. Based on the significance threshold defined by the CMP, a project would result in a significant traffic impact if the project would add more trips than 1% of the peak-hour freeway capacity on freeway segments that operate at LOS F (VTA 2009). As shown in Table 3.12-4, Project construction is anticipated to generate a combined maximum of up to 116 vehicle trips during peak hours and a combined average of about 74 vehicle trips during peak hours. <u>When the trips are added to the individual freeway segments there would be a maximum of 33 trips per hour and an average of 21 trips per hour</u>. <u>The Project hourly trips, when combined with the individual freeway segments, are below the VTA threshold for CMP roadways and below Caltran's Traffic Impact Study guide threshold of 50 trips per hour on a freeway segment.</u> The trips added to the individual freeway segments would be less than 1% peak-hour capacity of these freeways. Therefore, construction-related traffic is not expected to significantly degrade the operation or LOS of the freeways. Calculation of peak-hour freeway capacities and the added construction trips on these freeways are included in **Appendix K-2**.

Response to Comment E-2

The District understands its responsibilities as a lead CEQA agency. The District will adopt and implement all mitigation measures prescribed in the MMRP.

The District is in close communication with Caltrans representatives regarding the Proposed Project and will continue this relationship throughout the encroachment permit application process, and project construction.

Response to Comment E-3

The text for Mitigation Measure TR-1 in Section 3.12 of the DEIR has been updated to ensure that the site-specific traffic control plan is prepared in accordance with the California Manual on Uniform Traffic Control and the traffic management plan requirements of corresponding jurisdictions. The changes are as follows:

> The District will develop a site-specific traffic control plan with the following mitigating actions to minimize the effects of Project construction activities and traffic on surrounding roadways, bicycle and pedestrian facilities, transit services, and emergency access. The plan, to be approved by the City of Sunnyvale, will be prepared by a licensed traffic engineer in accordance with the *California Manual on Uniform Traffic Control Devices* and the traffic management plan requirements of corresponding jurisdictions. ~~and be approved by the City of Sunnyvale.~~

Response to Comment E-4

Comment noted. This restriction is already incorporated into the Traffic Control Plan, developed per Mitigation Measure TR-1: *Develop and Implement a Site-Specific Traffic Control Plan*.

Response to Comment E-5

If necessary, the District or its contractors will acquire the necessary transportation permits from Caltrans for any oversized or excessive load vehicles and any special haul routes.

Response to Comment E-6

A complete cultural resources investigation was conducted for the project. The report is included in Appendix E of the DEIR. Additional details of this report can be provided to Caltrans.

Response to Comment E-7

The District has conducted hydrologic modeling of the project area in order to design the project. Results are summarized in the Planning Study Report included in Appendix B of the DEIR. Additional information can be provided to Caltrans.

Response to Comment E-8

The 90% designs will be provided to the Caltrans engineering team as part of the encroachment permit application process.

Response to Comment E-9

Sediment removal locations are listed in Table 2-3. *Proposed Sediment Removal Activities,* on page 2-59 of the DEIR. None of these locations identified in Table 2-3 are within Caltrans right of ways.

Response to Comment E-10

The NOP was issued before the environmental analysis was conducted. We expected there would be significant geology/soils impacts at the NOP stage. However, once the analysis was completed, impacts were found to be less than significant.

Response to Comment E-11

Comment Noted.

Response to Comment E-12

No transportation facilities are located on dikes or levees that would affect State transportation facilities. Therefore, there is no need to coordinate with Caltrans on this issue.

Response to Comment E-13

Comment noted. The District will partner with Caltrans on habitat stewardship issues where District and Caltrans ROW intersect.

Response to Comment E-14

Hydrological studies, including use of a HEC-RAS model, were conducted to design the Project. Sea level rise was a factor in the hydrologic modeling. See the Sea Level Rise discussion in Chapter 3.8 *Hydrology, Geomorphology & Water Quality,* which starts on DEIR page 3.8-24. The following response was submitted to Mr. Darren Stauts in the Caltrans Structure Maintenance and Investigations Unit on September 24, 2013.

The District's hydraulic model assumes that sedimentation patterns within the proposed Caribbean Drive RCB after construction will mimic those of the existing surrounding channel cross section, which has reached an equilibrium state and was formed by the action of tidal currents. Sedimentation was assumed to occur in the two end-boxes because that is consistent with how tidal channels typically form; there is a central channel area which allows passage of the primary tidal currents and two side-benches which form around the mean-higher-high water level. Since HEC-RAS program does not allow for the assumption of an angled sedimentation pattern within the culvert, the two end culverts were filled to a level elevation. The District's sedimentation assumptions are reasonable because they mimic the existing, equilibrium channel and provide a similar

flow area to the surrounding channel. There are currently no transitional wingwalls at the existing Caribbean Drive Bridges.

The Project design includes concrete transitional channel wingwalls to be constructed on the upstream and downstream sides of the proposed new RCB culvert which will change the sediment deposition pattern at the RCB culvert end walls/abutments. The final Project HEC-RAS hydraulic model (submitted to Caltrans on August 14, 2013) assumed sediment deposition of 4.75 feet in the two side cells (half full) based on the existing pre-Project sediment pattern and assumed post-project sediment deposition pattern with the RCB culvert transitional channel wingwalls. The center cell was modeled with 1.4 feet of sediment and represents the current surveyed sediment elevation of the pre-Project channel bottom/configuration. This approach more realistically represents the potential post-project sediment deposition conditions as influenced by the San Francisco Bay tides.

In addition, the HEC-RAS starting water surface elevation assumes a conservative starting water surface elevation of 13.15 NAVD88, which is equivalent to the 100 year tidal elevation with an additional 2 feet to account for future sea level rise. The model conservatively assumes that this high starting water surface elevation will occur simultaneously with the peak 1%flow.

Response to Comment E-15

The Project will occur within Caltrans existing right of way for the SR237 barrier replacements and adjacent floodwalls. The District is coordinating the design with Mr. Hani Romani, Caltrans District Branch Chief in the Office of Permits. The Project will be required to obtain a Caltrans Encroachment Permit for work within the Caltrans ROW. The District or its contractor will obtain the Construction Encroachment permit from Caltrans.

Traffic related mitigation measures, if necessary, will be included in the construction specifications and addressed in the Caltrans Encroachment Permit.

MEMORANDUM

Department of Environmental Health
Solid Waste Enforcement Program - LEA
Hazardous Materials Compliance Division
Department of Agriculture and Environmental Management
County of Santa Clara County

1555 Berger Drive, Suite 300
San Jose, CA 95112-2716

DATE: 12/12/13
TO: Tiffany Hernandez, Santa Clara Valley Water District
FROM: Jaji Murage, Santa Clara County Department of Environmental Health
SUBJECT: Santa Clara Valley Water District Sunnyvale East and West Channels Flood Protection Project Draft Environmental Impact Report

The following statement is being made in regards to the Santa Clara Valley Water District Sunnyvale East and West Channels Flood Protection Project Draft Environmental Impact Report:

Some sections of the east and west channels of the flood protection project are located within the boundary or adjacent to a regulated closed landfill owned and operated by the City of Sunnyvale. The Santa Clara County Department of Environmental Health regulates and inspects the site as the Local Enforcement Agency (LEA) per Title 27 of the California Code of Regulations (27 CCR), Section 21870 and to ensure the site compliance with Sections 21180 - Postclosure Maintenance, 21190 - Postclosure Land Use and 21780, 21830, and 21840 relating to the approved Closure and Postclosure Maintenance Plan for the landfill. F-1

The LEA requires that any project that may impact the closed landfill and the Closure and Postclosure Maintenance Plan be reviewed and approved by our office.

Please contact our office for more information: Jaji Murage, jaji.murage@deh.sccgov.org, (408) 685-6188.

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Comment Letter F – Murage, Jaji (Santa Clara County Department of Public Health)

Response to Comment F-1

See Responses to Comments D-16 and D-17.

Table ES-1 *Proposed Project Regulatory Permits, Approvals and Consultations* on page ES-7, and Table 2-7 (same title) on page 2-76, are the same table. These tables have been updated to include the Santa Clara County Department of Environmental Health and Local Enforcement Agency authority related to the City of Sunnyvale Landfill, under Local Agencies (shown below).

Table ES-1. Proposed Project Regulatory Permits, Approvals and Consultations

Agency	Permit / Approval / Consultation	Project Activities
Local Agencies		
Santa Clara County Department of Environmental Health	Local Enforcement Agency (LEA) letter of approval per Title 27 of the California Code of Regulations (27 CCR), Section 21870. LEA review and approval to ensure the site compliance with CCR Sections 21180 - Postclosure Maintenance, 21190 - Postclosure Land Use and 21780, 21830, and 21840 relating to the approved Closure and Postclosure Maintenance Plan for the City of Sunnyvale Landfill.	Proposed grading, culvert replacement and floodwall construction immediately adjacent to the City of Sunnyvale Landfill.

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Letter G

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

December 26, 2013

Ms. Tiffany Hernandez
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Dear Ms. Hernandez:

Subject: Sunnyvale East and West Channels Flood Protection Project Draft Environmental Impact Report, SCH #2013012041, Santa Clara County

The California Department of Fish and Wildlife (CDFW) has reviewed the Santa Clara Valley Water District's (SCVWD) Sunnyvale East and West Channels Flood Protection Project Draft Environmental Impact Report (EIR). CDFW received an extension to submit comments on the draft EIR to January 3, 2014 in an email from you dated December 11, 2013. CDFW has the following comments:

Page 2-89 – Concrete Curing: Best Management Practice (BMP) WQ-10 states that wet sacked concrete and poured concrete will be excluded from the wetted channel for a period of two weeks after installation. Due to the alkalinity of fresh concrete and its potential effects to increase the pH of a waterbody, please revise the BMP to state that wet sacked concrete and poured concrete will be excluded from the wetted channel for a minimum of 30 days after installation. A period of less than 30 days may be acceptable upon use of a commercial sealant, once the sealant has dried (as already described in the BMP). G-1

Page 3.0-6 – Salt Marsh Harvest Mouse Mitigation Area: The draft EIR states that an existing maintenance road levee along the East Channel will be raised adjacent to an existing salt marsh harvest mouse (*Reithrodontomys raviventris*) mitigation site. Please provide additional details about the mitigation site, including ownership, size, a map depicting its location, distance to the nearest portion of the project area, and a description of any barriers that exist between the mitigation site and the project area. G-2

Pages 3.3-41 and 3.3-48 – Temporary Impacts: In discussing impacts to aquatic and wetland communities, the draft EIR states that "[i]mpacts from activities such as sediment removal and bench construction (a subcomponent of rock slope protection along one reach) are considered temporary because sedimentation and vegetation regrowth will result in a resumption of conditions similar to existing conditions within a few years following construction". The draft EIR continues stating, "[h]owever, impacts that result in fill of wetlands or aquatic habitat, such as placement of rock slope protection, are considered permanent". Please be advised that if the project site is not restored to pre-project G-3

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G-3 cont. conditions (or better) within one year, CDFW does not consider the impacts to be temporary. The draft EIR should clearly specify whether the impacts of 0.72 acres of direct temporary impacts to wetlands and other waters (composed of 0.46 acres of temporary impacts to tidal wetlands and waters and 0.26 acres of temporary impacts to non-tidal wetlands and waters) are consistent with CDFW's definition of temporary impacts described above.

G-4 Page 3.3-51 – Mitigation Measure BIO-1: Mitigation Measure (MM) BIO-1 states that mitigation for temporary impacts to vegetated wetlands and permanent impacts to both vegetated wetlands and unvegetated aquatic habitats will be provided at a ratio of 1:1 (one-acre of mitigation for every one-acre disturbed) via creation or restoration of wetlands/other waters. Please see CDFW's recommendation above (under Temporary Impacts) regarding CDFW's definition of temporary impacts. In the case of wetland or grass-lined channels, CDFW recommends that the draft EIR include mitigation for these semi-permanent or permanent impacts that include a replanting component at a minimum ratio of 2:1.

G-5 MM BIO-1 also presents several options to achieve mitigation for impacts to vegetated wetlands and unvegetated aquatic habitats, including on-site restoration or creation of wetlands or aquatic habitats (including removal of on-site fill); off-site restoration or creation of wetlands; financial contribution to restoration programs for tidal wetland restoration (such as the South Bay Salt Pond Restoration Project); and purchase of mitigation credits at approved mitigation banks within the San Francisco Bay Region. Please be advised that CDFW does not favor mitigation on already publicly-owned land (such as the South Bay Salt Pond Restoration Project), unless SCVWD can demonstrate that it has explored other mitigation options and that no other mitigation options are feasible. In addition, mitigation should be located as close as possible to the same watershed (preferably within the same waterbody) that the impacts were incurred.

G-6 Pages 3.3-52 and 3.3-56 – Longfin Smelt: The draft EIR states that the state threatened longfin smelt (*Spirinchus thaleichthys*) may be present in the tidal reaches of the Sunnyvale Channels infrequently and/or in low numbers. MM BIO-2 states that prior to dewatering activities in tidal reaches, a qualified biologist will use nets to exclude fish from the construction area. The methodology described includes placement of a block net at the upper end of the reach to be dewatered, while a qualified biologist walks from the upper end to the lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net will be placed to isolate the construction reach. The procedure will be repeated a minimum of three times per dewatered tidal reach to ensure no fish are present in the dewatered reach. The draft EIR should provide additional information on this methodology, for example, whether these block nets would be left in place for the duration of construction, or whether it will be necessary to re-install the block nets each day that in-channel construction will occur in a given reach.

While the methodology described above appears to minimize impacts to fish (in comparison to electrofishing or other methods requiring direct handling to capture and relocate fish), longfin smelt have the potential to become entangled in the block netting. If this were to occur, CDFW would consider this take of a state listed species (Fish and Game Code Section 86 defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Please be advised that take of a state listed species would require a 2081(b) Incidental Take Permit (ITP). Note that a review of the past ten years of CDFW's midwater and otter trawl survey data for longfin smelt reveals that this species has not been detected in the southern portion of San Francisco Bay between the months of May and October, inclusively. Therefore, it appears that an in-channel work window of June 15 through October 15 may be appropriate to avoid impacts to longfin smelt. Pages 2-63 and 2-64 discuss project phasing and state that in-channel work may be performed between approximately June 1 and October 1. To insure that take of longfin smelt is avoided, CDFW recommends that the draft EIR indicate a work window of June 15 through October 15 to avoid impacts to this species. G-7

Page 3.3-57 – Chinook Salmon: The draft EIR states that the Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*) may be present in the project area. The draft EIR also states that genetic analysis has confirmed that Chinook salmon in the South Bay are derived from hatchery stock. Thus, SCVWD does not consider the species to be a native run in the South Bay, and has assessed impacts to this species with other non-special-status fish and amphibians. Please be advised that Central Valley fall-run Chinook salmon are considered a State Species of Special Concern, and that project-related impacts should be assessed as they would be for any other special-status species. The draft EIR should provide a complete analysis of potential impacts to Chinook salmon and include appropriate avoidance, minimization and mitigation measures to reduce impacts to less-than-significant levels. G-8

Pages 3.3-73 – 3.3-80 – Burrowing Owl: To address impacts to the State Species of Special Concern burrowing owl (*Athene cunicularia*), the draft EIR discusses measures such as pre-construction surveys, buffer zones of 150 feet or 250 feet (depending on potential impacts during the non-breeding versus breeding season), monitoring of owls during construction, passive relocation of owls, restoration of temporary impact areas, and habitat preservation and/or management for impacts to occupied breeding habitat. The draft EIR states that because the project is not covered under the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (Habitat Plan), is located outside of the Habitat Plan area, and the project's permanent impacts to potential foraging habitat used by breeding burrowing owls are low, that the project does not easily lend itself to providing mitigation according to the Habitat Plan. CDFW recommends SCVWD implement effective burrowing owl avoidance, minimization and mitigation measures consistent with the Habitat Plan. SCVWD must avoid take of burrowing owl and should implement appropriate and effective minimization measures based on the best available science and mitigate impacts consistent with Appendix M of the Habitat Plan. Please be advised that CDFW cannot authorize owl relocation, including passive eviction, and that this activity is not permissible under the Burrowing Owl Conservation Strategy (except under a specific exception pertaining to a G-9

G-9 cont. positive growth trend in the burrowing owl population, as described in Chapter 6 of the Habitat Plan). CDFW recommends that the section in the draft EIR addressing the burrowing owl be revised to be consistent with Appendix M of the Habitat Plan.

G-10 Pages 3.3-83 – 3.3-85 – Salt Marsh Harvest Mouse: Although the draft EIR acknowledges the fully protected status of the salt marsh harvest mouse, it is not clear that the project, as described, will completely avoid take of the species. Fully protected species may not be taken or possessed at any time (Fish and Game Code Section 4700), and CDFW cannot issue an ITP for project-related activities to authorize take of a fully protected species. The draft EIR should include effective avoidance measures to be implemented during project activities to completely avoid take of fully listed species.

G-11 The draft EIR states that levee-raising activities along the northeastern-most portion of the East Channel at its confluence with Guadalupe Slough may result in injury or mortality of salt marsh harvest mice from crushing or injury by personnel or equipment. In addition, installation of a silt fence along the southern bank of the East Channel near its confluence with Guadalupe Slough could result in disturbance to the species. The draft EIR states that SCVWD will implement BMPs BIO-16 and BIO-17 to reduce harm to salt marsh harvest mice, should they be present in the project area. BMP BIO-16 involves the closure of pipes, hoses, and similar structures less than 12 inches in diameter to prevent animal entry; inspection of pipes, culverts, and similar structures greater than 2 inches in diameter before being buried, capped, used, or moved; and covering or providing escape ramps for steep-walled holes or trenches exceeding 6 inches in depth. BMP BIO-17 involves the daily removal of trash from the work site to avoid attracting predators to the site. To further reduce the potential for harm of this species, the draft EIR states that SCVWD will implement MM BIO-12, which establishes a minimum 10-foot buffer during levee-raising activities along the south/east bank of the East Channel near its confluence with Guadalupe Slough. CDFW recommends that the draft EIR be revised to provide a detailed description of the type of buffer that will be established (flagging, silt fencing, exclusion fencing, etc.), and the effectiveness of this buffer to completely avoid take of salt marsh harvest mouse.

G-12 The draft EIR also states that disturbance of upland transitional habitat surrounding the marshes could disturb salt marsh harvest mice seeking refuge during high tides, but that noise and vibrations due to project-related disturbances on levees are unlikely to cause mice inhabiting nearby transitional habitats to flush into open areas where predation may occur. The draft EIR states that salt marsh harvest mice would be acclimated to existing levels of disturbance on these levees. Please be advised that levels of noise and vibrations that exceed the normal level of these types of activities in the area could disturb salt marsh harvest mice present in upland refugia, causing them to flush into open areas where they could be subject to predation. CDFW recommends that the draft EIR provide additional information describing the existing levels of noise and vibration in the project area, relative to the levels anticipated during project construction.

Page 3.9-17 – Tree Removal: Table 3.9-2 indicates a total of 69 city trees are anticipated to be removed as a result of the project. There does not appear to be any discussion in Chapter 3.3 (Biological Resources) regarding tree removal, or discussion of impacts to non-wetland riparian habitat. Please be advised that CDFW's 1602 jurisdiction includes the bed, bank, channel, and associated riparian habitat. Associated riparian habitat may include trees or shrubs that have a hydrologic connection to the waterbody, and/or contribute shade, nutrients (i.e., leaf litter, small woody debris), large woody debris, or in any other way affect the waterbody, including water quality. Please clarify whether any trees or shrubs located within CDFW's 1602 jurisdiction would be impacted (pruned or removed) in any way from implementation of the project. If trees or shrubs within CDFW's 1602 jurisdiction will be impacted, CDFW recommends that the draft EIR be revised to include additional information regarding these impacts including quantities, species, size (diameter at breast height), and include mitigation to reduce the impacts to less-than-significant levels. G-13

CDFW appreciates the opportunity to comment on SCVWD's draft EIR. If you have any questions regarding this letter and further coordination on this project, please contact Ms. Tami Schane, Environmental Scientist, at (415) 831-4640; or Ms. Brenda Blinn, Senior Environmental Scientist (Supervisory), at (707) 944-5541.

Sincerely,

Scott Wilson

Scott Wilson
Regional Manager
Bay Delta Region

cc: State Clearinghouse

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Comment Letter G - Wilson, Scott (Department of Fish and Wildlife)

Response to Comment G-1

Best Management Practice WQ-10 *Evaluate and Select the Most Appropriate Use of Concrete Near Waterways* in Table 2-8. *Best Management Practices for the Proposed Project,* on page 2-89 of the DEIR, has been amended to require poured concrete to be excluded from the wetted channel for a period of 30 days after it is poured instead of two weeks (shown below).

> Poured concrete will be excluded from the wetted channel for a period of ~~two weeks~~30 days after it is poured. During that time, the poured concrete will be kept moist, and runoff from the wet concrete will not be allowed to enter a live stream. Commercial sealants (e.g., Deep Seal, Elasto-Deck Reservoir Grade) may be applied to the poured concrete surface where difficulty in excluding water flow for a long period may occur. If a sealant is used, water will be excluded from the site until the sealant is dry.

Response to Comment G-2

The CDFW has requested additional information (e.g., ownership, size, location) regarding the mitigation site mentioned on page 3.0-6 of the DEIR. In response, the District has revised Figure 3.3-2d as well as the following paragraph, beginning on page 3.0-5 of the DEIR, to include the requested information.

> Along the East Channel, new floodwalls downstream from Caribbean Drive would be more extensive. However, mammals or reptiles attempting to move in an east-west direction across this channel would still be able to use the Caribbean Drive bridge and the footbridge northwest of the City of Sunnyvale's Twin Creeks Sports Complex, which provide the only two existing above-water crossings of this reach. As a result, the only impediment to movement posed by the floodwalls would be to wildlife attempting to cross the channel on land; while reptiles may cross through the channel, mammals are expected to do so infrequently because most have established terrestrial movement pathways that do not require them to swim across the channel. Along the East Channel ~~next to the salt marsh harvest mouse mitigation site~~ immediately adjacent to an approximately 400-foot long stretch of the Twin Creeks Sport Complex's northeastern boundary and an approximately 775-foot long stretch of the Sunnyvale Baylands Seasonal Wetland Preserve's northern boundary (Figure 3.3-2d), the existing maintenance road levee would be raised. By raising the levee at this location, instead of installing a floodwall, no barriers to movement of the salt marsh harvest mouse and other wildlife would exist between the Bay and the Sunnyvale Baylands Seasonal Wetland Preserve (a 105-acre wetland preserve owned by the County of Santa Clara, which includes a 3.0-acre seasonal wetland restoration site, a 3.6-acre freshwater restoration site, and a 5.5-acre pickleweed habitat restoration site for the salt marsh harvest mouse). Wildlife could move up and over the levee and continue moving across the East Channel.

Response to Comment G-3

The District understands that the CDFW considers impacts to be temporary only if the project site is restored to pre-project conditions (or better) within one year. However, the District considers impacts on wetlands and other waters to be temporary if habitat functions and values are restored to pre-project conditions within two years following construction. The District's perspective is based on a study conducted by the District (Rankin and Hillman 2000) that investigated the nature of wetland impacts resulting from the District's sediment removal projects in flood control channels in 1997 and 1998. The study measured vegetation regrowth after sediment removal. At 1998 excavation sites, total nontidal and tidal regrowth surpassed pre-excavation amounts within one to two years. At the 1997 excavation sites, nontidal wetland regrowth approached or surpassed pre-excavation amounts within two years; although tidal regrowth remained lower than the pre-excavation amount. Vegetation dominance and quality at regrowth sites had similarities to reference sites, with most differences being either neutral or positive (e.g., full or partial transition from one native-dominated vegetation type to another; disappearance of a non-native vegetation type; increased total percent cover). The substantial regrowth amounts on study sites indicates that instream wetlands can and do re-establish after sediment removal activities, but that such regrowth may often require two years to reach pre-project levels. This study is directly applicable to the Sunnyvale Channels because of the dominance of these channels by herbaceous (rather than woody) vegetation and, in most places, the relatively low quality of habitat provided by this vegetation due to necessary ongoing maintenance. In conclusion, it is the District's opinion that temporarily impacted wetlands and other waters will restore to pre-existing conditions within one to two years, and such impacts should be considered temporary.

Response to Comment G-4

In response to the CDFW's comment regarding the mitigation ratio for semi-permanent and permanent impacts on wetlands or grass-lined channels, the District has revised Mitigation Measure BIO-1 to increase the mitigation ratio for the permanent loss of vegetated wetlands from 1:1 (mitigation:impact) to 2:1. Regarding temporary impacts on vegetated wetlands, the District expects water quality and habitat values to quickly (i.e., within one to two years) return to pre-construction conditions following the completion of Project activities (see Response to Comment G-3). Nevertheless, in order to compensate for the temporal loss of habitat functions and values provided by vegetated wetlands, such as sediment stabilization, sediment/toxicant retention, nutrient removal/transformation, and aquatic and terrestrial wildlife species habitat, the District has revised Mitigation Measure BIO-1 to increase the mitigation ratio for the temporary loss of vegetated wetlands from 1:1 to 1.2:1, providing an additional 10 percent mitigation for each year functions and values are temporarily lost (i.e., up to two years).

Mitigation Measure BIO-1: Implement Compensatory Mitigation for Temporal Loss of Vegetated Wetlands and Permanent Loss of Vegetated and Unvegetated Wetlands and Other Waters

Mitigation for ~~temporary impacts on vegetated wetlands and permanent impacts on both vegetated wetlands and unvegetated aquatic habitats shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed)~~ temporary or permanent impacts on unvegetated wetlands and other aquatic habitat shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed). Mitigation for temporary impacts on vegetated wetlands shall be provided at a ratio of 1.2:1, and mitigation for permanent impacts on vegetated wetlands shall be provided at a ratio of 2:1. Mitigation shall be provided via creation or restoration of wetlands/other waters. Mitigation may be achieved through one or more options, potentially including (but not limited to):

- onsite restoration or creation of wetlands or aquatic habitats (including removal of onsite fill) if feasible onsite restoration opportunities exist;
- offsite restoration/creation of wetlands;
- financial contribution to restoration programs for tidal wetland restoration, such as the South Bay Salt Pond (SBSP) Restoration Project; and/or
- purchase of mitigation credits at approved mitigation banks within the San Francisco Bay Region.

Response to Comment G-5

The District understands that the CDFW does not favor mitigation on already publicly-owned land (such as the South Bay Salt Pond Restoration Project area), however, it is the District's opinion that activities that replace wetland functions and values adequately are biologically appropriate as mitigation measures regardless of location. The Mitigation Measure describes a range of options that may be implemented so long as the success criteria are achieved. The District has not committed to provide funds to the South Bay Salt Pond Restoration Project. Wetland mitigation measures will be discussed with and approved by regulatory agencies including the CDFW, during the permitting process. The District agrees that mitigation should be as close to the impact site as possible, while still providing functions and values that are at least commensurate with those impacted.

Response to Comment G-6

Per the comment, Mitigation Measure BIO-2, on page 3.3-56 of the DEIR, has been amended to provide additional detail on the methodology to be employed to exclude fish from construction areas (shown below). The District appreciates CDFW's concern regarding the potential for longfin smelt to become entangled in block netting; thus, Mitigation Measure BIO-2 specifies the size of netting to be used in order to avoid such an impact.

Mitigation Measure BIO-2: Conduct Fish Removal during Project Site Dewatering Activities

Prior to dewatering activities in tidal reaches, a qualified biologist would use nets to exclude fish from the construction area. During a falling tide, a block net (mesh size shall not exceed 9.5 mm to ensure that longfin smelt are adequately excluded from this area but do not

become entangled) shall be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists shall walk from the upper to lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net shall be installed to isolate the construction reach. This procedure shall be repeated a minimum of three times per dewatered tidal reach to assure no green sturgeon, steelhead, or longfin smelt remain within the construction area. ~~Mesh size shall not exceed 9.5 mm to ensure that longfin smelt are adequately excluded from this area~~. Subsequently, a qualified biologist will supervise the controlled dewatering of the Project reach. Fish exclusion barriers shall be left in place until project construction activities in a reach are complete. Upon the completion of construction activities, all temporary diversion structures will be removed and flows gradually restored to the channel. Following restoration of flow to the channel, the fish exclusion barriers shall be removed under the supervision of a qualified biologist.

Response to Comment G-7

Per the comment, Impact BIO-2 (page 3.3-52) has been amended to include information from the CDFW regarding the time of year when longfin smelt have been recorded in the southern portion of the San Francisco Bay (shown below), and the work window for in-channel work on page ES-6 and 2-63 has been adjusted to June 15 through October 15 (from June 1 to October 1) to ensure impacts on longfin smelt are avoided (shown below). Mitigation Measure BIO-2 will still be prescribed to further ensure impacts to all fish are avoided or minimized.

Page ES-6 Construction of the Proposed Project is anticipated ~~planned~~ to take place over the summers of ~~2014 and~~ 2015 and 2016. Work is planned to begin around May 1st and last through about November 1st in both years. In-channel work is planned for the driest time of the year, between approximately June 15 and October 15~~June 1st and October 1st or as otherwise allowed by Project regulatory permits~~. Construction would be conducted by several workers in multiple crews, working on both channels concurrently.

Page 2-63 Construction of the Proposed Project is planned to take place over the summers ~~2014 and~~ 2015 and 2016. In both years, the work window is expected to begin around May 1st and continue through about November 1st. All project construction would comply with periods specified in Project regulatory permits (e.g., for protection of biological species and water quality). Work in the channel easements, such as for floodwalls, maintenance and levee rising, and some bridge/culvert modifications, would generally occur anytime during the annual construction window. In-channel work, such as rock slope protection, outfall and wingwall bank stabilization, concrete lining of the channel, sediment removal, and channel excavation for bridge reconstruction would occur during the driest time of the year, approximately between June 15 and October 15~~June 1st and October 1st or as otherwise allowed by Project regulatory permits~~.

Page 3.3-56 Longfin smelt (state listed as threatened), green sturgeon (federally listed as threatened and a California species of special concern), and Central California Coast steelhead (federally listed as threatened) could potentially occur in the tidal reaches of the Sunnyvale Channels infrequently and/or in low numbers (refer to Table 3.3-2 above and Appendix N). None of these species is expected to spawn in the Project Area; however, ~~foraging juvenile and adult green sturgeon may be present infrequently and in low numbers, and~~ small numbers of steelhead and longfin smelt may occasionally stray onto the Project Area. If these species were to occur in the Project Area, their presence would be limited to tidally influenced areas of the Sunnyvale Channels, which occur on the West Channel downstream of Mathilda Avenue and on the East Channel downstream of the SR 237

crossing. However, a review of the past ten years of CDFW's midwater and otter trawl survey data for longfin smelt reveals that this species has not been detected in the southern portion of San Francisco Bay between the months of May and October, inclusively. Therefore, implementation of the in-channel work window (June 15 through October 15) is expected to avoid impacts on longfin smelt.

Response to Comment G-8

Although the EIR considers the Chinook salmon that may be present in the Project area as a non-special status species because genetic analysis has confirmed that Chinook in South Bay streams are all derived from hatchery stock (Hedgecock 2002), and therefore do not represent a native run in the South Bay, the potential impacts on this species are fully analyzed under Impact BIO-3 and the potential impact on Essential Fish Habitat for Chinook salmon is analyzed under Impact BIO-4. Thus, the potential effects on Chinook salmon are adequately described. Further, although it is the District's conclusion that no mitigation would be needed to reduce impacts on Chinook salmon to less-than-significant levels, implementation of mitigation measures for other species (i.e., green sturgeon, steelhead, and longfin smelt) would benefit this species. Mitigation Measure BIO-1 would compensate for impacts on habitat for the Chinook salmon and Mitigation Measure BIO-2 would minimize the potential for the loss of individuals during dewatering of Project reaches.

Response to Comment G-9

Mitigation Measures BIO-6, BIO-7, and BIO-8 are similar to the requirements of the Santa Clara Valley Habitat Conservation Plan (Habitat Plan) as they require pre-construction surveys for burrowing owls within 250 feet of work areas, implementation of non-disturbance buffer zones around occupied burrows, and monitoring of owls during construction. Mitigation Measure BIO-6, as described in the DEIR, was more stringent than the Habitat Plan as it requires up to four pre-construction surveys, whereas the Habitat Plan requires a maximum of only three surveys. However, per the CDFW's comment, the District has revised Mitigation Measures BIO-6, BIO-7, and BIO-8 to more closely adhere to the requirements outlined in the Habitat Plan (shown below).

The CDFW recommends that the District mitigate impacts on burrowing owls in a manner consistent with Appendix M of the Habitat Plan. However, the Habitat Plan does not provide a recommended acreage of mitigation per impacted burrowing owl. Rather, the Habitat Plan calculates the total amount of burrowing owl habitat needed under the Plan based on (1) an estimate of the current number of burrowing owls in the South Bay, (2) the number of owls that will need to be recruited into the South Bay population each year for the population to be stable or increasing, (3) the percentage of the South Bay population that the Habitat Plan will address (70 percent), and (4) the minimum acreage of foraging habitat needed around each nest site (140 acres). However, because owls from multiple nests sites may use the same foraging habitat, the total estimate of lands needed was reduced by 20 percent. Further, the acreage of new lands needed was

reduced by another 15 percent as it is assumed that some conservation will occur on lands already managed by Permittees. Based on these calculations, the Habitat Plan Implementing Agency will manage a minimum of 5,300 acres for burrowing owl nesting habitat. Permittees under the Plan will mitigate for their impacts on burrowing owls by paying a fee based on the acreage of suitable nesting habitat impacted, not the number of individual owls impacted. The fee will be used to acquire burrowing owl habitat. Therefore, as described on page 3.3-79, mitigation for project impacts on burrowing owls cannot be completed per the requirements of the Habitat Plan (i.e., payment of fees to the Habitat Agency) as there is no mechanism for the District to pay fees to the Habitat Agency for projects outside of the Habitat Plan area. Further, the Habitat Plan does not provide a recommended mitigation ratio on a per-owl-affected basis. Therefore, the District has proposed mitigation for loss of occupied nesting habitat on a per owl basis in a manner consistent with the California Burrowing Owl Consortium Guidelines (1993), as well as mitigation for loss of foraging habitat.

While the Habitat Plan does not allow passive eviction of burrowing owls (except under a specific exception pertaining to a positive growth trend in the population) for projects covered under the Habitat Plan, the project is not a covered project and eviction/relocation activities are not prohibited by the California Fish and Game Code outside of the breeding season. In addition, the VHP's exceptions process, which would be appropriate if the presence of owls precluded implementation of this important flood protection project, is not applicable to non-VHP projects. As a result, without any means of relocating owls during the non-breeding season, adherence to the VHP's conditions regarding owl eviction outside the VHP area could either result in impacts to owls, if construction were to occur without eviction, or it could completely preclude implementation of the project.

Mitigation Measure BIO-6: Conduct Pre-Construction Surveys for Burrowing Owls

Pre-construction surveys for burrowing owls shall be conducted prior to the initiation of all Project activities within suitable burrowing owl habitat (i.e., ruderal/ grassland habitat with burrows of California ground squirrels). A qualified biologist will conduct an initial habitat survey, mapping areas with burrows (i.e., areas of highest likelihood of burrowing owl activity) and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement) on the project site. This mapping will be conducted while walking transects throughout the entire project footprint, plus all accessible areas within a 250-foot radius from the project footprint. The centerline of these transects will be no more than 50 feet apart and will vary in width to account for changes in terrain and vegetation that can preclude complete visual coverage of the area. If suitable habitat is identified during the habitat survey, preconstruction surveys will be required. To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped. Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days

between surveys and construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction. ~~Pre-construction surveys will be completed in conformance with the CDFW's 2012 guidelines (CDFG 2012). An initial habitat assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat is present in a given area. During the initial site visit, a qualified biologist will survey the entire activity area and (to the extent that access allows) the area within 250 feet of the site for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat (i.e., ruderal grasslands with burrows of California ground squirrels) is present within a given area, no additional surveys will be required. If suitable burrows are determined to be present within 250 feet of work areas, a qualified biologist will conduct three additional surveys to investigate each burrow within the survey area for signs of owl use and to determine whether owls are present in areas where they could be affected by proposed activities. The final survey shall be conducted within the 24-hour period prior to the initiation of Project activities in any given area~~. Because Project activities may be phased, these survey efforts may also need to be performed in phases to ensure that burrowing owls are not present in work areas when Project activities commence. This measure applies to the staging areas as well as the Project areas along the Sunnyvale Channels.

Mitigation Measure BIO-7: Implement Buffer Zones for Burrowing Owls

If burrowing owls are present during the non-breeding season (generally September 1 to January 31), a ~~150~~250-foot buffer zone shall be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, a reduced buffer and monitoring may be implemented as described under MM BIO-8~~then the buffer must be great enough to avoid injury or mortality of individual owls~~, or else the owls should be passively relocated as described in MM BIO-9 below. During the breeding season (generally February 1 to August 31), a 250- foot buffer, within which no new Project-related activities will be permissible, will be maintained between Project activities and occupied nests~~burrows~~. Owls present between February 1 and August 31 will be assumed to be nesting, unless ~~and the 250- foot protected area will remain in effect until August 31. If~~ monitoring evidence indicates that the owls are no longer nesting, ~~or~~ the young owls are foraging independently, or only a single owl (rather than a breeding pair) is present after July 1st and there is no evidence that young owls are present. If no active nesting is occurring, the buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.

Mitigation Measure BIO-8: Monitor Owls during Construction

Any owls occupying the Project Area are likely habituated to frequent human disturbances throughout the year in the form of District maintenance activities and recreational use of the levee maintenance roads. As a result, they may exhibit a tolerance of greater levels of human disturbance than owls in more natural settings, and work within the standard 250-foot buffer during the nesting season may be able to proceed without disturbing the owls. Therefore, if ~~nesting~~ owls are determined to be present on the site, and Project activities cannot feasibly avoid disturbance of the area within 250 feet of the occupied nest~~burrow~~, ~~during the nesting season (i.e., February 1 through August 31) due to other seasonal constraints, a qualified biologist will be present during all activities within 250 of the nest to monitor the owls' behavior.~~construction activities within the non-disturbance buffer will be allowed during the breeding season if the following criteria are met:

- the nest is not disturbed, and

- the project proponent develops an avoidance, minimization, and monitoring plan that will be approved by the CDFW prior to project construction, and that is based on the following criteria.
    - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
    - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
    - If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.
    - If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the CDFW.

Construction activities within the non-disturbance buffer during the non-breeding season will be allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites. Alternatively, the owl(s) may be passively evicted during the non-breeding season (see Mitigation Measure BIO-9).

- A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.
- If the owls are gone for at least one week, a qualified biologist may excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone may be removed and construction may continue.

~~If in the opinion of the qualified biologist, the owls are unduly disturbed (i.e., disturbed to the point of harm or reduced reproductive success), all work within 250 feet of the occupied burrow will cease, and MM 7 shall be implemented.~~

Response to Comment G-10

The District acknowledges that because the SMHM is fully protected, measures must be implemented to ensure avoidance of take. The BMPs and Mitigation Measures discussed in the DEIR have been developed carefully to effectively avoid impacts on SMHM.

Response to Comment G-11

The District appreciates the CDFW's concern regarding the effectiveness of implementation of Mitigation Measure BIO-12 at avoiding take of the salt marsh harvest mouse.

Although no suitable breeding or foraging habitat for the salt marsh harvest mouse is present within the project footprint, the species may be present in tidal and non-tidal brackish marsh immediately adjacent to the project area. Salt marsh harvest mice are unlikely to move from occupied areas adjacent to the project site across maintenance roads or levees, as they have not been documented to move more than 16.4 feet over bare ground (Bias 1994, Geissel et al. 1988). However, if project personnel or equipment were to stray into adjacent habitats, impacts on salt marsh harvest mice could occur as a result of trampling or crushing of individuals. Therefore, in order to define and isolate potential harvest mouse habitat and prevent the accidental intrusion of project personnel or construction equipment into such habitat, Mitigation Measure BIO-12 requires the establishment of a 10-foot buffer between the outer limits of project construction activities and suitable salt marsh harvest mouse habitat. Per the comment, Mitigation Measure BIO-12 has been revised to clarify how the buffer will be established (shown below).

> **Mitigation Measure BIO-12: Maintain Buffer during Construction Adjacent to Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Habitat**
>
> During levee raising activities along the south/east bank of the East Channel near its confluence with Guadalupe Slough, starting at the eastern edge of the Twin Creeks Sports Complex and continuing eastward, a minimum 10-foot buffer, measured as the straight-line distance (e.g., diagonally/down-slope on a sloped bank) will be maintained between the outer limits of Project construction activities ~~(i.e., silt fence installation)~~ and any marsh habitat present beyond the Project boundary (i.e., in the wetland mitigation area to the south or along Guadalupe Slough to the north). Silt fences will be erected adjacent to construction areas to define the buffer and isolate potential harvest mouse habitat. In addition, Project personnel will ensure that the silt fencing in this area is sturdy and is regularly maintained so that no material falls into these wetlands during levee raising.

Response to Comment G-12

The District shares CDFW's concerns regarding the potential for noise and vibrations related to levee raising activities along the approximately 0.25-mile long stretch of the south/east bank of the East Channel near its confluence with Guadalupe Slough to disturb salt marsh harvest mice in adjacent areas, causing them to flush into open areas where predation may occur. The noise and vibrations resulting from such activities will be the same as those resulting from levee maintenance in numerous areas throughout the South Bay where salt marsh harvest mouse occur (e.g., by the District [e.g., Stream Maintenance Program activities], Cargill, the CDFW [e.g., at Eden Landing], and by the USFWS [within the Don Edwards San Francisco Bay National Wildlife Refuge]), maintenance which has been occurring for decades using the same approaches proposed for the Sunnyvale Channels project. More details on these levels can be found in the Noise/Vibration Section 3.10 in the DEIR. As a result, construction of silt fencing, as described under Mitigation Measure BIO-12 (see above) and as utilized for past levee-related projects adjacent to this species' habitat, will prevent salt marsh harsh mice from flushing onto the open levees where they could be subject to increased predation. Further, implementation of BMP AQ-2 shall minimize vibrations caused by

construction equipment by limiting traffic speeds on the unpaved levee to 15 miles per hour. Given the very limited portion of levee that is adjacent to potential salt marsh harvest mouse habitat and the limited duration of Project activities within this segment, the District expects the use of exclusion fencing and the buffer described in Mitigation Measure BIO-12 to reduce the effects of noise and vibrations on salt marsh harvest mice to less-than-significant levels and to avoid take of this species.

Response to Comment G-13

Although 69 trees will be impacted by the project, we have verified that the majority (68) are rooted beyond the top of bank, outside of CDFW jurisdiction. The project will result in the removal of only one tree within CDFW's jurisdiction. This tree provides relatively low functions and values to wildlife because it is a relatively small (approximately 20-foot tall) non-native species [Peruvian pepper (*Schinus molle*) tree]. Further, the eastern bank of the channel in the location of this pepper tree, located along the Sunnyvale West Channel just downstream of Ross Drive, would continue to support a continuous corridor of woody vegetation just beyond the top of bank. Thus, the removal of this tree would not result in a substantial adverse effect on riparian habitat and would not rise to the level of significance under CEQA. Therefore, no mitigation is necessary to reduce this impact to a less-than-significant level. Nevertheless, as described in Impact LU-2, the District will comply with the City's Tree Ordinance and replacement policy for removal of trees within the City's ROW. Further, the District will comply with the requirements of the CDFW's 1602 permit for the project.

February 21, 2014
CIWQS Place No. 742602 (MB)

Sent via electronic mail: No hardcopy to follow

Santa Clara Valley Water District
Attn: Tiffany Hernandez
5750 Almaden Expressway
San Jose, CA 95118

Subject: CEQA Comments on Draft Environmental Impact Report for the Sunnyvale East and West Channels Flood Protection Project, SCH No. 2013012041

Dear Ms. Hernandez:

San Francisco Bay Regional Water Quality Control Board (Water Board) staff has reviewed the Public Review Draft Environmental Impact Report (DEIR) for the Sunnyvale East and West Channels Flood Protection Project (Project). The Project consists of the Santa Clara Valley Water District (District) constructing floodwalls, raising levees, improving maintenance roads, removing sediment, replacing or modifying bridges and culverts, and repairing bank erosion along a 9.5 mile length of Sunnyvale East and West channels in the cities of Sunnyvale and Cupertino. Based on the information provided in the DEIR we offer the following comments.

<u>Comments on Alternatives Analysis</u>

Both a Clean Water Act (CWA) Section 401 water quality certification and a CWA Section 404 Permit from the U.S. Army Corps of Engineers (USACE) will be necessary for fill impacts to waters of the U.S. Additionally, the District may need to file a Report of Waste Discharge if the Project may impact waters of the State, even if such waters have been excluded from federal jurisdiction (e.g., isolated wetlands, ephemeral streams without a significant nexus, or streambanks above the ordinary high water mark). A Stream Bed Alteration Agreement from the California Department of Fish and Wildlife may also be necessary since the Project involves stream channels and riparian habitat. H-1

The Regional Water Board adopted U.S. Environmental Protection Agency's (USEPA) Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams or other waters of the State may be permitted.

The 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the U.S., unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative (LEDPA) that will achieve the basic project purpose.

The Guidelines sequence the order in which proposals should be approached: 1) avoid—avoid impacts to waters; 2) minimize—modify project to minimize impacts to waters; and, 3) mitigate—once impacts have been fully minimized, compensate for unavoidable impacts to waters. When it is not possible to avoid impacts to water bodies, disturbance should be minimized. Compensatory mitigation for lost water body acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Where impacts cannot be avoided, the creation of adequate mitigation habitat to compensate for the loss of water body acreage, functions, and values must be provided.

H-1 cont.

The project alternatives analyzed in the DEIR and *Appendix B: Sunnyvale East Channels and Sunnyvale West Channel Flood Protection Project Planning Study Report* do not satisfy the LEDPA analysis requirements under the 404(b)(1) Guidelines. The Final Environmental Impact Report (FEIR) should include an analysis that identifies the LEDPA by evaluating alternatives that first, avoid impacts; second, minimize impacts; and lastly, compensate for unavoidable impacts. The DEIR describes how project alternatives that included the use of Pond A4 were rejected due to potential water quality impacts. If project alternatives with Pond A4 are rejected, previously rejected alternatives need to be reconsidered with all remaining alternatives in the FEIR. This would include further analysis of project alternatives that incorporate natural flood protect elements and aquatic resource functions including the use of Braly Park as a detention basin and right-of-way acquisition that incorporate design elements to allow for overbank flows in riparian and floodplain areas. In addition, the FEIR should include project alternatives with a reduced number of bank erosion repairs and alternatives that use bioengineering techniques wherever possible instead of rock slope protection and concrete lining of the channel bed and bank.

Successful flood control projects should include a mix of up-watershed detention/peak reduction, bypasses around major constrictions, expansion of the low-watershed floodplain, and channel restoration where appropriate. The FEIR should include project alternatives that implement watershed-based measures including but not limited to stormwater harvesting and reuse, groundwater recharge, off-stream detention basins, green streets, removal of hydraulic constrictions and channel restoration.

The District should be aware that, unlike an analysis of alternatives under CEQA, the 404(b)(1) Guidelines do not allow for the use compensatory mitigation[1] as a method of reducing environmental impacts in the evaluation of LEDPA. The 1990 memorandum of agreement between the USEPA and the Department of the Army states:

[1] "Compensatory mitigation" refers to the replacement of stream and wetland area, functions, and beneficial uses through creation or restoration as part of a permitting action for a CWA Section 401 water quality certification or waste discharge requirements.

> Compensatory mitigation may not be used as a method to reduce environmental impacts in the evaluation of the least environmentally damaging practicable alternatives for the purposes of requirements under Section 230.10(a) (USEPA 1990).[2]

H-1 cont.

Compensatory mitigation cannot be used as a strategy to arrive at a preferred alternative and should only be used after all avoidance and minimization measures have been exhausted. The DEIR relies on compensatory mitigation to reduce impacts to waters of the State to a less than significant level. The District will need to exhaust all impact avoidance and minimization measures before relying on compensatory mitigation to determine LEDPA when applying for a CWA Section 401 water quality certification.

Comments on Impacts to Hydrology, Geomorphology and Water Quality

The FEIR needs to more adequately consider direct, secondary, and cumulative temporary and permanent impacts to hydrology, geomorphology and water quality resulting from the Project. H-2

Impacts on Erosion, Sedimentation, or Stream Instability

We disagree with the DEIR conclusion that effects on erosion, sedimentation, or stream instability from Project would be less than significant. The DEIR states:

> The Proposed Project would alter existing hydrologic and geomorphic conditions of the Sunnyvale Channels. However, the Project is expected to result in a net reduction in channel erosion, sedimentation, and stream instability through the slope protection and bank stabilization components of the Project (p. 410)"…and… "Any increase in the amount of streamflow in the Sunnyvale Channels as a result of the Proposed Project, is not expected to increase erosion or scouring within the channels (p. 408).

H-3

To determine erosion potential, the DEIR relies on a comparison of the peak flow discharge in current baseline conditions from the 10-year flow event versus the 100-year flow event. The DEIR acknowledges there is uncertainty in this analysis and therefore, the FEIR should include more thorough analysis on the potential impacts to erosion, sedimentation, and stream instability resulting from the Project. This analysis should include hydrologic and geomorphic studies on how changes in cross-sectional area, streamflow, and sediment load may result in increased deposition, erosion, or stream instabilities.

[2] USEPA. 1990. Memorandum of agreement between the environmental protection agency and the department of the army concerning the determination of mitigation under the clean water act section 404(b)(1) guidelines. Reprinted in 55 Federal Register 9210 (March 10, 1990).

H-3 cont.

Appendix A: Notice of Preparation/Initial Study and Public Comments states:

> The placement of some localized hardened streambank materials may result in accelerated flows (compared to current conditions), which may have the potential to increase scouring and erosion downstream. The District understands this potential result and *will design features such that substantial downstream erosion or stream instability will not result* (emphasis added; pp. 50–51).

The DEIR includes no discussion related to project design features to mitigate accelerated flows. The FEIR should include project alternatives with design features that avoid and minimize effects on erosion, sedimentation, or stream instability.

Impacts from Box Culverts

H-4

The DEIR finds that, "installation of box culverts would modify the channel geometry and could change streamflow and sedimentation processes in these areas and immediately downstream (p. 408)." The FEIR should include hydrologic and sediment transport studies to determine if replacement box culvert designs are appropriate to pass the sediment load and stream flow and will not result in any geomorphic changes to channel shape or slope upstream and downstream of the Project site or require ongoing maintenance to remove sediment deposited within the box culvert. The hydrogeomorphic analysis should demonstrate that the Project design will not cause channel scour or sedimentation downstream and/or create channel slope instabilities and headcutting upstream. The analysis should also include hydraulic information to ensure adequate flow capacity of the culvert (based on the ability to route storm flows of a specified recurrence interval). Without this information Regional Water Board staff cannot determine the potential direct and indirect impacts of the Project and appropriate measures to avoid impacts.

The FEIR should also evaluate project alternatives to box culvert replacement that will avoid and minimize adverse impacts to streamflow and sediment transport processes. This should include project design alternatives such as free span bridges, low-water crossings (where appropriate), larger culverts to increase flow capacity and eliminate hydraulic constrictions, and culverts with natural substrate bottoms.

Impacts from Bank Stabilization

H-5

We disagree with the DEIR conclusion that, "because of the low functioning baseline condition of the existing stream banks, replacement of earthen banks with hardened material is considered a less-than-significant impact (p. 407)." The Regional Water Board is charged with protecting beneficial uses (existing and potential) from pollution and nuisance that can occur as a result of waste discharges in the Region and takes measures to both protect and restore beneficial uses.

DEIR Appendix A states, "bank stabilization activities may result in local hardening of streambanks, including use of riprap, sack concrete, and concrete. Where possible, the Project *will use earthen streambanks, graded banks, and other non-hardened approaches to repair eroding banks and provide a stable stream channel* (emphasis added; p. 50)." If the FEIR preferred alternative includes rock slope protection and concrete lining of the channel bed and bank, the FEIR should demonstrate, supported by engineering analysis, that bioengineering methods are technically infeasible and that hardscape methods are necessary based on the Project site sheer stresses. The USACE has developed tables of allowable shear stresses which relate the capacity of channel conditions assisted with different soil bioengineering systems to offer effective resistance to these shear stresses.[3] This USACE reference (Fischenich 2001) can provide guidance to determine the most appropriate bank stabilization methods based on site-specific conditions. H-5 cont.

The FEIR should include more justification on the need for bank repair at erosion sites. The short narrative description provided in DEIR Table 3.8-6 is insufficient to determine appropriate measures to avoid and minimize impacts. The analysis of erosion sites in the FEIR should consider factors that contribute to erosion (such as those listed on pp. 46–47 in DEIR Appendix B) and evaluate watershed processes as well as the influences acting on a smaller, more localized reach level which are affecting erosion processes at individual project sites.

Impacts from Dewatering

The DEIR finds that:

> Contaminated groundwater could be encountered during excavation activities requiring dewatering of the Sunnyvale Channel reaches. The extent of exposure to persons or the environment would depend on the nature and extent of any contaminated groundwater discovered, as well as the manner by which groundwater is handled and discharged, such as in a tank or through a pipeline (p. 355).

H-6

The Regional Water Board reminds the District that for any site dewatering activity, whether or not there is known soil contamination at the site, dewatering discharges may be contaminated. If the water is tested and found to be clean, and if there is no history of contamination on the site or on adjacent sites, the District should implement best management practices (BMPs) to control sediment as necessary to ensure that the water is clean prior to discharge to an upland, storm drain, or water body. If the water is contaminated, as a first choice, the water should be discharged to the sanitary sewer, assuming the local municipality allows this. If discharge to the sanitary sewer is not feasible then the water should be used onsite for dust control or for other uses. If the

[3] Fischenich, J.C. 2001. Stability thresholds for stream restoration materials. EMRRP Technical Notes Collection. *ERDC TN-EMRRP-SR-29*. U.S. Army Engineer Research and Development Center, Vicksburg, MS. 10 pp.

H-6 cont. water is not needed for onsite use, then the water should be discharged to a vegetated upland. As a last resort, dewatering effluent could possibly be discharged to surface waters (an NPDES permit may be needed for this type of discharge depending on volume, quality, etc.). The FEIR should reference these mitigation measures in BMPs WQ-11, WQ-12, WQ-15, and WQ-16.

Impacts from Roads

H-7 While the DEIR concludes that any changes in runoff and associated effects on erosion or sedimentation in the channels from the paving of maintenance roads are expected to be minimal, the DEIR does not analyze the impacts of asphalt road paving on water quality. The FEIR should include a discussion of the adverse impacts to water quality associated with paving the maintenance road (e.g., polycyclic aromatic hydrocarbons) and discuss project alternatives that would result in fewer impacts to waters of the State, such as topping the maintenance roads with gravel instead of asphalt where possible or routing the runoff through vegetated areas.

Comments on Impacts to Biological Resources

H-8 The FEIR needs to more adequately consider direct, secondary, and cumulative temporary and permanent impacts to biological resources resulting from the Project.

Impacts from Erosion, Sedimentation, or Stream Instability on Biological Resources

H-9 As discussed above, we disagree with the DEIR conclusion that effects on erosion, sedimentation, or stream instability from Project would be less than significant. The Project may result in downstream hydrologic and sediment load change which could affect biological resources and beneficial uses of waters of the State. The FEIR should include an analysis of how changes in streamflow velocities may result in erosion, sediment deposition, and changes in channel form in the Sunnyvale Channels and downstream in Guadalupe Slough. If hydrologic and geomorphic studies indicate adverse impacts to biological resources from the Project, the FEIR should include appropriate BMPs to mitigate such impacts. The FEIR should also include an analysis of how the Project may impact upstream fish migration and, as necessary, incorporate mitigation measures such as modifying box culvert and bridge replacement design to maintain upstream fish migration.

Impacts to Vegetation, Wetlands, and Other Waters

H-10 The FEIR states:

> Because barren slopes are more susceptible to erosion from incident rainfall, the loss of wetland vegetation and non-instream vegetation along stream banks following Project activities may *result in an increase in erosion and sedimentation. This may lead to the filling in of the channels and damage to wetland vegetation* (emphasis added; p. 251)."

The FEIR goes on to conclude that, “water quality and habitat values in unvegetated aquatic habitats subject to temporary disturbance are expected to quickly return to pre-construction conditions following the completion of Project activities. Thus, no mitigation is necessary for temporary impacts to unvegetated aquatic habitats (p. 258).” The Regional Water Board considers all impacts (both temporary and permanent) to aquatic habitats (both vegetated and unvegetated). The District will be required to account for impacts to unvegetated aquatic habitats in their application for CWA Section 401 water quality certification. The FEIR should include mitigation measures to vegetate or revegetate disturbed areas to reduce erosion and sedimentation and impacts to biological resources. BMPs WQ-41 and BIO-13 should be revised to include these revegetation measures.

The DEIR describes Project compensatory mitigation, “for temporary impacts on vegetated wetlands and permanent impacts on both vegetated wetlands and unvegetated aquatic habitats shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed) via creation or restoration of wetlands/other waters (p. 259).” The proposed mitigation for impacts to wetlands and aquatic habitats is insufficient and will not satisfy the requirements of the San Francisco Bay Basin Water Quality Control Plan (Basin Plan) or meet the goals of the *California Wetlands Conservation Policy* (Executive Order W-59-93; No Net Loss Policy; as described in Section 4.23.4 of the Basin Plan) to achieve no net loss and a long-term net gain the quality and quantity of stream and wetland resources. The Regional Water Board considers the following factors in determining the amount and type of mitigation required: H-10 cont.

- The type of compensatory mitigation (e.g., off-site, out-of-kind);
- Differences between the aquatic resource functions lost at the impact site and the functions expected to be provided by the mitigation project;
- Temporal losses of aquatic resource functions (i.e., functions lost due to the passage of time between loss of the impacted aquatic resource and creation/restoration of the full-functioning mitigation project); and
- The difficulty, uncertainty, and likelihood of success of a mitigation project.

The District will need to provide a higher compensatory mitigation ratio to satisfy Regional Water Board requirements.

Impacts to Fish Habitat

We disagree with the DEIR conclusion that, “by reducing erosion and resulting sediment inputs into streams, levee modifications and placement of rock slope protection may result in a long-term beneficial impact on habitat quality for fish (p. 254).” The Regional Water Board does not consider arresting erosion processes through placement of hardened streambank materials a beneficial impact but rather an impact to waters of the State. The FEIR should weigh all aquatic resource functions together, such that reduction in erosion potential is considered in tandem with direct loss of aquatic habitat from streambank rock H-11

slope protection and concrete lining of the channel bed and bank. The DEIR provides examples of this approach with regards to other aquatic resource functions:

H-11 cont.

> Nevertheless, levee modifications and placement of rock slope protection would result in some long-term improvement of water quality in wetlands and other waters by reducing erosion and resulting sediment inputs. However, this beneficial impact would be offset to some extent by a reduction in vegetated wetlands, which provide sediment-holding services (pp. 256–257).

Comments by the California Department of Fish and Wildlife

H-12

Both the Regional Water Board and the California Department of Fish and Wildlife protect aquatic species and their habitats. The Regional Water Board takes actions to achieve water quality objectives and protect and restore beneficial uses including Estuarine Habitat, Fish Migration, Fish Spawning, Preservation of Rare and Endangered Species, and Wildlife Habitat. The Regional Water Board has reviewed the Department of Fish and Wildlife's comment letter on the DEIR (dated December 26, 2013) and supports all comments contained therein. We agree with the California Department of Fish and Wildlife that the FEIR should provide a complete analysis of potential impacts to Chinook salmon and include appropriate mitigation measures to reduce impacts to less than significant levels.

Comments on Impacts to Geology and Soils

H-13

The FEIR needs to more adequately consider direct, secondary, and cumulative temporary and permanent impacts to geology and soils resulting from the Project.

Buffers around Staging Areas

H-14

The DEIR finds that, "several Project construction activities, specifically those occurring in channel easements, in the channels themselves, and in staging areas, have the potential to expose and loosen soils, leaving them susceptible to erosion from surface runoff (p. 330)." The DEIR shows several staging areas adjacent to water of the State (Figures 2-3a–2-3i). All efforts should be made to maintain a buffer between the 13 staging areas and waters of the State to minimize any construction related impacts on water quality.

The FEIR should identify the establishment of buffers around staging areas as a mitigation measures. To avoid water quality and habitat impacts from Project staging areas, we recommend establishing a buffer area of 100 feet around all waters of the State in the Project area. This is consistent with the recommendations for construction

site BMPs from the California Department of Transportation (2003[4], p. 71) and the California Stormwater Quality Association (2009[5], p. 111):

- The buffer width needed to maintain water quality ranges from 5 to 30 m (16 to 98 ft)…Buffer widths for habitat concerns are typically wider than those recommended for water quality concerns (30 to 500 m [98 to 1,640 ft]).

- The buffer width needed to maintain water quality ranges from 15 to 100 ft…Buffer widths for habitat concerns are typically wider than those recommended for water quality concerns (100 to 1500 ft).

H-14 cont.

Erosion Control BMPs

The DEIR states that, "erosion control fabric and revegetation *via hydroseeding* and planting would be used on regraded channel areas to minimize erosion from these areas after development of the Project (emphasis added; p. 329)." We caution that erosion control treatments such as hydroseeding, hydraulic mulch, tackifiers, soil binders, and straw mulch should not be placed below the mean high water level as these materials could wash into the channel and impact water quality (California Stormwater Quality Association 2009). Other soil bioengineering methods such as the planting of willow stakes and emergent in-stream vegetation could be used to stabilize the bed and banks below the mean high water-level.

H-15

Closing

Please contact me at 510-622-2308 or blivsey@waterboards.ca.gov with any questions or comments.

Sincerely,

Ben Livsey
Environmental Specialist

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[4] California Department of Transportation. 2003. Storm Water Quality Handbooks: Construction Site Best Management Practices (BMPs) Manual.
[5] California Stormwater Quality Association. 2009. Stormwater Best Management Practice Handbook Portal: Construction.

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Comment Letter H – Livesy, Ben (San Francisco Bay Regional Water Quality Control Board)

Response to Comment H-1

The District appreciates the summary of the Clean Water Act (CWA) Section 404(b)(1) Guidelines. The District will comply with CWA Section 404(b)(1) as part of the project permitting process. The alternatives analysis presented in the EIR adequately complies with CEQA Guidelines and was not structured to address CWA Section 404(b)(1) requirements. As described above, those requirements will be met through the project permitting process. The Regional Water Quality Control Board will receive the CWA Section 404(b)(1) analysis with submittal of the application materials for CWA Section 401 water quality certification of the Proposed Project.

Response to Comment H-2

The comment does not provide specific information on inadequacies of the hydrology, geomorphology, and water quality impact analysis.

Response to Comment H-3

Comment H-3 disagrees with the DEIR's conclusion that effects on erosion, sedimentation, or stream instability from the Project would be less than significant. While questions are raised by Comment H-3, a scientific basis to support the comment's disagreement with the impact conclusion of the DEIR is not provided.

Impact evaluation HYD/WQ-1 discussed the potential direct and long-term effects of the proposed erosion controls and channel improvements. The discussion concludes on DEIR page 3.8-48 stating that the Project's effects on erosion, sedimentation, and stream stability are less than significant. The primary objectives of the Project are to provide additional stream capacity, address existing erosion conditions, prevent future flooding, and prevent future erosion. Severely eroded existing streambanks will be repaired and treated through rock slope bank protection, and where possible, more gentle bank grading, to address the current erosive condition and prevent future erosion.

Comment H-3 suggests that additional studies need to be conducted to evaluate how Project changes in cross-sectional area, streamflow, and sediment load may result in increased deposition, erosion, or stream instabilities. Such studies would not alter the DEIR conclusion that the Project will not result in significant erosion, sedimentation, or stream instability. It is more likely that the opposite would be the case, as the stated goals of the Project and the design objectives of the project are to reduce erosion and instability.

The Sunnyvale East and West Channels are entirely constructed artificial drainage ways, designed and built to provide drainage and conveyance to an area that had

undergone urbanization and land subsidence. The Sunnyvale channels were not engineered modifications to an existing stream course. There were no prior stream courses in the area, these channels were designed and built solely to address stormflows and flooding that was exacerbated by the urban development and the land subsidence.

Under existing baseline conditions, the channel cross sectional area is undersized. The channels were designed to provide 10-yr storm event conveyance. This sizing of the original drainage channels has resulted in routine flooding since the original channels were built, and destabilization and erosion along several locations of the channel banks. The Project will increase the channel conveyance area in areas using heightened floodwalls and levees. Under baseline conditions, the existing channel is highly erosive, floods regularly, and also enables additional water quality impacts of suspended sediment transport from bank erosion and introduction of pollutants from adjacent flooded urban areas that drain back into the channel. The post Project condition will have reduced erosion, reduced bank instability, and improved water quality compared to the current condition.

Comment H-3 also includes a reference to a statement from the *Notice of Preparation/Initial Study* (NOP/IS), included in Appendix A of the DEIR, describing the potential for the Project to result in increased flows which may result in increased scouring or erosion downstream. The impact evaluation for the DEIR concluded that the net effect for this possible situation (raised in the NOP/IS) was very unlikely due to the increased sheer strength provided by the stronger bed and bank materials used by the Project in repairing and strengthening the channel banks and bed.

Response to Comment H-4

Box culverts will be installed in two locations; at the crossing of the East Channel at Caribbean Drive and the crossing of the West Channel at Carl Road. Both of these locations are influenced by tidal fluctuations of the San Francisco Bay Estuary.

Comment H-4 requests information to support the appropriateness of the box culvert designs to pass the sediment load and stream flow, and to prevent geomorphic changes in the channel and long-term maintenance needs. The commenter is directed to Appendix B of the DEIR, which includes the Planning Study Report (PSR). Specifically, Section 3 the PSR which discusses the hydrologic and sediment transport evaluations conducted for project designs.

Comment H-4 also requests hydraulic information to ensure adequate flow capacity of the culverts under different storm recurrence intervals. As explained, in the PSR these culverts were specifically designed to pass storm flows under a variety of flow conditions, and in consideration of tidal flows and future sea level rise. The PSR describes the HEC-RAS model that was developed to evaluate the 100-year and 10-

year flood events (page 29). Flow capacity at the bridge crossings is discussed on page 31 of the PSR.

The District's hydraulic model assumed that sedimentation patterns within the proposed box culverts at Carl Road and Caribbean Drive would mimic existing conditions which are formed by the action of tidal currents. Consistent with existing conditions, sediment deposition was assumed to occur in the two end boxes of the triple-celled box culvert, while the center box would remain open to allow passage of primary tidal currents. The model assumed sediment deposition up to 4.75 feet depth in the two side cells (half filled with sediment) based on the existing sediment patterns at the sites. The center box cell was modeled with 1.4 feet of sediment accumulation on the bottom, which also reflects recent surveyed elevation of the channel bottom, as influenced by tidal actions. In other words, the District used the understanding of current sedimentation patterns at these crossings caused by the governing tidal circulation processes to build in an assumed level of bay mud sedimentation into the culvert design capacity. The District's modeling and design efforts reflect a conservative, self-sustaining culvert design that will accommodate existing tidal actions and sediment transport patterns, while meeting FEMA flood protection and freeboard standards.

Comment H-4 suggests that alternatives to the proposed box culverts be evaluated to reduce impacts on stream flow and sediment transport processes. The District evaluated a range of road crossing designs including free span bridges, culverts, and various sized reinforced concrete box culverts. These designs were evaluated on a combination of cost, environmental, and other feasibility reasons. The preferred alternative was an oversized reinforced concrete box culvert where the cells of the box would be allowed to fill with sediment (in tidal areas). Therefore, the need for sediment removal would be eliminated, thus reducing any future impacts due to maintenance.

Response to Comment H-5

Comment H-5 disagrees with the DEIR's evaluation of proposed bank stabilization activities.

The Proposed Project will not use concrete anywhere except for the 300 foot reach of the East Channel trapezoidal channel just downstream of North Wolfe Road and the new wingwalls to be installed along with the Carl Road and Caribbean Drive culverts, and the West Java Drive culvert extension.

As part of the Project analysis and design process, channel hydraulic conditions were analyzed to evaluate if alternative bank treatment solutions such as biotechnical bank stabilization measures could be used to address the existing erosion conditions. As a result of that analysis, which included consideration of discharge volume, water depth, stream velocities, sheer stresses, bank steepness, and top of bank width and easement width; the use of rock slope protection was found to be the only feasible method that

could provide long term channel stability and bank protection considering the sites hydraulic conditions and narrow site constraints.

The comment suggests that the DEIR should include more justification for the need for bank repair at erosion sites. DEIR Table 3.8-6 in Chapter 3.8, "Hydrology Geomorphology and Water Quality," describes specific channel reaches with erosion sites that will be addressed by the Project. Table 3.8-6 includes information regarding the existing site condition and cause of the erosion.

Response to Comment H-6

Comment H-6 raises concerns related to discharge of construction-related waters. The comment identifies BMPs WQ-11, WQ-12, WQ-15, and WQ-16. These four BMPs specifically address water quality protection during water diversion and bypass actions. The commenter is directed to review BMPs WQ-21, WQ-22, and WQ-40 for avoidance and minimization measures specifically directed to reducing sediment and turbidity impacts.

Mitigation Measure HM-1 prescribes the process for identification and handling of potentially contaminated waters.

Response to Comment H-7

The purpose of paving the short reaches of channel maintenance roads is to establish recreational pathways. These paved paths will reduce sediment contributions to the Channels from existing unpaved, gravel roads, particularly during the wet season when sediment on unpaved roads transport into the channel with storm runoff. The newly paved paths will be frequently utilized by recreationists, in coordination with the City of Sunnyvale (see Response to Comment D-1). Paving provides a safer service for the public and is a better long-term solution for road maintenance while protecting water quality from sediment contributions.

The paved paths would be relatively narrow, 10-ft wide, and paving would be laid during dry summer months. Chemical residues in paving materials degrade when exposed to sunlight and would be not likely be detectable in the channel or shallow groundwater due to filtering properties of adjacent earthen banks and small relative area of paving.

Response to Comment H-8

The comment does not provide specific information on inadequacies of the biological resource impact analysis.

Response to Comment H-9

Refer to Response to Comment H-3 on comments related to hydrologic and geomorphic effects of the Proposed Project.

Potential effects on fish that would potentially migrate up channels in the Project area are discussed in Impact BIO-2 (green sturgeon, steelhead, and longfin smelt). The proposed box culvert and bridge replacements are located within the tidal zone of the East and West Channels. As stated on DEIR pages 3.3-52 to 3.3-54, the Proposed Project would not result in a substantial long-term change in the amount or suitability of aquatic habitat available to green sturgeon, steelhead, and longfin smelt. The box culverts installed at the East and West Channel crossings at Caribbean Drive and Carl Road, respectively, would not impede fish passage because the bottom elevation of the new box culverts would be installed 1.8 feet below the existing channel bed grade (see DEIR page 2-49) and the culverts are designed to pass tidal flows.

Response to Comment H-10

See Response to Comment G-4 in the letter submitted by the California Department of Fish and Wildlife.

The District has revised Mitigation Measure BIO-1 to increase the mitigation ratio for the permanent loss of vegetated wetlands from 1:1 (mitigation:impact) to 2:1. Regarding temporary impacts on vegetated wetlands, the District expects water quality and habitat values to quickly (i.e., within one to two years) return to pre-construction conditions following the completion of Project activities (see Response to Comment G-3). Nevertheless, in order to compensate for the temporal loss of habitat functions and values provided by vegetated wetlands, such as sediment stabilization, sediment/toxicant retention, nutrient removal/transformation, and aquatic and terrestrial wildlife species habitat, the District has revised Mitigation Measure BIO-1 to increase the mitigation ratio for the temporary loss of vegetated wetlands from 1:1 to 1.2:1, providing an additional 10 percent mitigation for each year functions and values are temporarily lost (i.e., up to two years).

Response to Comment H-11

See Response to Comment H-5 regarding the project site constraints and why use of rock to repair failing bank slopes is the preferred method. Loss of the small amount of wetland vegetation that provides poor quality habitat for a very small range of aquatic species does not outweigh the substantial impact of eroding banks along the East and West Channels and consequential adverse impacts on water quality and aquatic habitat downstream. Also, note that the East and West Channels are manmade and were not designed to provide “natural” aquatic stream habitat for salmonids or other special-status species; these are flood control channels.

Response to Comment H-12

See Response to Comment G-8.

Response to Comment H-13

The comment does not provide specific information on inadequacies of the geology and soils impact analysis.

Response to Comment H-14

Construction staging will conform to the Clean Water Act Section 402 National Pollutant Discharge Elimination System (NPDES) requirements for control of construction-related runoff and water quality protection. The conditions issued in the General Construction NPDES permit No. 2012-0006-DWQ are deemed adequate to protect water quality from construction-related impacts.

Response to Comment H-15

The District does not intend to place hydroseed, straw mulch, or other mobile forms of erosion controls below the mean high water level. The comment suggests planting vegetation below the mean high water level. However, this action would directly conflict with the District's efforts to maintain flood carrying capacity in the channels.

Chapter 4
Revisions to the DEIR

This chapter presents text changes to the DEIR in response to the public review and comment process. Changes made in response to comments are identified in Chapter 3 and reproduced in Section 4.1 *Changes and Corrections to the DEIR Initiated by Public Comments*. DEIR changes are presented in the order they would appear in the DEIR, and page numbers are provided to assist in identifying the location of the revisions. Additional changes to the DEIR to correct other errors in the document are presented in Section 4.2 *DEIR Changes Initiated by Lead Agency*.

This chapter provides excerpts of all text from the DEIR that have changed as a result of the comment and responses identified in Chapter 3. DEIR Revisions are shown with ~~strikethrough~~ text for deletions and <u>underlined</u> text for additions. DEIR page numbers are also identified for ease of reference.

4.1 Changes and Corrections to the DEIR Initiated by Public Comments

Revisions to "Executive Summary"

All references to the anticipated project construction period have been changed to identify construction in the summers of 2015 and 2016, between June 15 and October 15, and project completion by December 31, 2016. Previously, the DEIR identified the project being completed in 2015. In-channel construction work will be conducted between June 15 and October 15, instead of June 1 to October 1.

Change to Table ES-1

Agency	Permit / Approval / Consultation	Project Activities
Local Agencies		
City of Sunnyvale	Municipal Code Section 13.08.030 – Encroachment Permit	Permanent and temporary acquisition of easements from City of Sunnyvale
	<u>Land Acquisition</u>	<u>Floodwall construction and construction staging</u>
	<u>Easement Deed</u>	<u>Floodwall construction and construction staging</u>
	Municipal Code Section 13.16.060 – Tree	Removal of City of Sunnyvale trees during construction

Agency	Permit / Approval / Consultation	Project Activities
	Removal Permit	
	Municipal Code Section 10.40.080 – Truck Traffic	Temporary traffic controls and lane closures, and equipment haul routes on City of Sunnyvale streets.
Santa Clara County Department of Environmental Health	Local Enforcement Agency (LEA) per Title 27 of the California Code of Regulations (27 CCR), Section 21870. LEA review and approval to ensure the site compliance with CCR Sections 21180 - Postclosure Maintenance, 21190 - Postclosure Land Use and 21780, 21830, and 21840 relating to the approved Closure and Postclosure Maintenance Plan for the City of Sunnyvale Landfill.	Proposed grading, culvert replacement and floodwall construction immediately adjacent to the City of Sunnyvale Landfill.

Change to Page ES-6

Construction of the Proposed Project is anticipated ~~planned~~ to take place over the summers of ~~2014 and~~ 2015 and 2016. Work is planned to begin around May 1st and last through about November 1st in both years. In-channel work is planned for the driest time of the year, between approximately June 15 and October 15~~June 1st and October 1st or as otherwise allowed by Project regulatory permits~~. Construction would be conducted by several workers in multiple crews, working on both channels concurrently.

Change **Table ES-2** on pages ES-17 and -18:

Table ES-2. Summary of Potential Impacts and Mitigation Measures

3.9 Land Use and Planning			
Impact LU-2: Use of Maintenance Roads for Recreation Conflicts with Applicable Land Use Plans or Policies	LTS	None required.	LTS
Impact LU-~~2~~3: Project Tree Removal Conflicts with Applicable Land Use Plans or Policies	LTS	None required.	LTS
3.10 Noise and Vibration			
Impact NO-4: Permanent Alteration of Ambient Noise Levels from Project ~~Floodwall and Headwall~~ Components	LTS	None required.	LTS

Revisions to Chapter 2, "Project Description"

All references to the anticipated project construction period have been changed to identify construction in the summers of 2015 and 2016, and project completion by December 31, 2016. Previously, the DEIR identified the project being completed in 2015. In-channel construction work will be conducted between June 15 and October 15, instead of June 1 to October 1.

Change to page 2-17:

As the planning process has progressed, the District has also reached out to various other municipalities, local entities, and stakeholders that may be affected by the Project. Several meetings were held, including with the Sunnyvale City Council, City of Sunnyvale WPCP staff, City of Sunnyvale Planning Department staff; City of Sunnyvale Public Works Department, Lockheed-Martin; National Aeronautics and Space Administration (NASA); Santa Clara Unified School District Board of Education and Braly Elementary School faculty staff; U.S. Fish and Wildlife Service (USFWS); Sunnyvale Chamber of Commerce; and Sunnyvale Bicycle and Pedestrian Advisory Commission. The following regulatory agencies were contacted—USFWS, USACE, the California Department of Fish and Wildlife, the San Francisco Bay Regional Water Quality Control Board, and the San Francisco Bay Conservation and Development Commission.

Change to page 2-47, the second paragraph under "Maintenance Road Improvements" has been revised as follows:

The District and the City of Sunnyvale may enter into a Joint Use Agreement (JUA) to provide public access to certain portions of channel maintenance roads for the purpose of recreational use. If the JUA is approved by the District and the City of Sunnyvale, the~~The~~ District may pave several stretches of its existing gravel maintenance roads that are already commonly used for bicycling, hiking, and dog walking. However, most of the channel maintenance roads would remain unpaved. Paving of maintenance roads for recreational purposes would occur along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive. These recommendations are made with the specific intent of improving the road surfaces for bicycling, in compliance with Class I Bike Facilities for the City of Sunnyvale 2006 Bicycle Plan (City of Sunnyvale 2006) for which the City of Sunnyvale has already evaluated the impacts of an increase in bicycling and other recreational uses that would occur under the Bicycle Plan. Any damage that may occur to the paved maintenance road would be repaired at the cost and direction of the City of Sunnyvale in accordance with the JUA.

Change to Page 2-55:

Raising of Headwalls

Existing headwalls (concrete walls extending vertically from the road crossing over the channel) would be raised with new concrete. Concrete would either be added to existing headwall structures, or existing headwall structures would be demolished and new concrete headwalls would be constructed at a higher elevation. Headwalls would be raised at 8 roadway crossings of the East Channel and 4 roadway crossings of the West Channel. Headwalls proposed for East Channel road crossings are: 1) Caribbean Drive; 2) Moffett Park Drive; 3) SR 237; 4) Persian Drive; 5) Tasman Drive; 6) Duane Ave; 7) East Arques Avenue; 8) East Evelyn Avenue. Headwalls proposed for West Channel road crossings are: 1) Carl Road; 2) Caribbean Drive; 3) West Java Drive; and 4) Bordeaux Drive. The headwalls for the proposed Caribbean Drive bridge replacement on the East Channel and the Carl

Road culvert replacement on the West Channel will receive special design considerations. Art panels including visual architectural features will be incorporated into the headwalls. Examples of such features are seen at the Adobe Creek crossing at El Camino Real in Palo Alto or the Matadero Creek crossing at Lewis Road in Palo Alto. The headwall designs will be subject to approval by the City of Sunnyvale and the District.

Change to Table 2-4, page 2-61:

Table 2-4. Proposed Permanent and Temporary Property Acquisitions

Figure #/ Site ID	Type of Property Acquisition	Acreage Acquired	Duration of Acquisition
Sunnyvale East Channel			
Fig 2-3~~d~~e: Site 10	Permanent Easement	0.59	Permanent
Fig 2-3f: Site 11	Permanent Easement	0.04	Permanent
Fig 2-3d: Site 12	TCE/Staging Area	0.87	30 months
Fig 2-3d: Site 15	TCE/Staging Area	0.74	30 months

Change to Page 2-63:

Construction of the Proposed Project is anticipated~~planned~~ to take place over the summers of 2015 and 2016~~2014 and 2015~~. In both years, the work window is expected to begin around May 1st and continue through about November 1st. All project construction would comply with periods specified in Project regulatory permits (e.g., for protection of biological species and water quality). Work in the channel easements, such as for floodwalls, maintenance and levee rising, and some bridge/culvert modifications, would generally occur anytime during the annual construction window. In-channel work, such as rock slope protection, outfall and wingwall bank stabilization, concrete lining of the channel, sediment removal, and channel excavation for bridge reconstruction would occur during the driest time of the year, approximately between June 15 and October 15~~June 1st and October 1st or as otherwise allowed by Project regulatory permits~~.

Change to Table 2-7, Page 2-76

Agency	Permit / Approval / Consultation	Project Activities
Local Agencies		
City of Sunnyvale	Municipal Code Section 13.08.030 – Encroachment Permit	Permanent and temporary acquisition of easements from City of Sunnyvale
	Land Acquisition	Floodwall construction and construction staging
	Easement Deed	Floodwall construction and construction staging
	Municipal Code Section 13.16.060 – Tree Removal Permit	Removal of City of Sunnyvale trees during construction

Agency	Permit / Approval / Consultation	Project Activities
	Municipal Code Section 10.40.080 – Truck Traffic	Temporary traffic controls and lane closures, and equipment haul routes on City of Sunnyvale streets.
Santa Clara County Department of Environmental Health	Local Enforcement Agency (LEA) letter of approval per Title 27 of the California Code of Regulations (27 CCR), Section 21870. LEA review and approval to ensure the site compliance with CCR Sections 21180 - Postclosure Maintenance, 21190 - Postclosure Land Use and 21780, 21830, and 21840 relating to the approved Closure and Postclosure Maintenance Plan for the City of Sunnyvale Landfill.	Proposed grading, culvert replacement and floodwall construction immediately adjacent to the City of Sunnyvale Landfill.

Change to Table 2-8, page 2-89:

BMP WQ-10: *Evaluate and Select the Most Appropriate Use of Concrete Near Waterways*

2. Poured concrete will be excluded from the wetted channel for a period of ~~two weeks~~30 days after it is poured. During that time, the poured concrete will be kept moist, and runoff from the wet concrete will not be allowed to enter a live stream. Commercial sealants (e.g., Deep Seal, Elasto-Deck Reservoir Grade) may be applied to the poured concrete surface where difficulty in excluding water flow for a long period may occur. If a sealant is used, water will be excluded from the site until the sealant is dry.

Addition to Table 2-8, page 2-99:

BMP WQ-30: *Discharges to Sanitary Sewer System*

To prevent water quality contaminants, including sediment, from entering local creeks and the Bay, this measure involves removing pollutants from construction-related discharged through use of the wastewater treatment processes. Implementation process for this measure:

1. Obtain necessary approval from wastewater treatment plant or sanitary sewer agency:
   a. Obtain approval or permit for a one-time discharge, or
   b. Obtain approval or permit for annual or ongoing discharge.
2. Design Considerations:
   a. Identify nearest access to a sanitary manhole near the discharge location.
   b. Construct discharge system with an air gap between the outlet pipe of the discharge line and the sewerage. If an adequate air gap cannot be maintained at all times to prevent cross contamination, select another control measure.
   c. Develop a traffic control plan and implement it prior to the discharge operation. Typically, sanitary sewer manholes are located in traffic lanes.

Discharging to these manholes will cause a disruption of the vehicular traffic flow.

d. Obtain a confined-space entry permit if it is necessary to enter a manhole.

3. Construction Specifications:

a. Maintain flow within the limits that are acceptable to the local sanitary sewer agencies.
b. Direct the discharge water to the sanitary sewer system by fixed piping, flexible piping, or a system to capture surface flow discharging (e.g. sand bags).
c. Install the piping outlet above the manhole at height of at least twice the diameter of the outlet pipe.
d. Anchor the piping such that the energy from the discharge water will not cause the piping to thrust out of position.

4. Inspection and Maintenance (implement throughout discharge activity):

a. Check for leaks from the piping system.
b. Observe the system in operation and make repairs as required to keep the discharge flowing into the sanitary sewer system.
c. Ensure that the air gap is maintained at all times.
d. Observe the water quality and record on a discharge activity checklist.
e. Monitor the flow of the discharge and record on a discharge activity checklist.
f. If the wastewater treatment plant or sanitary sewer agency has dictated water quality requirements, monitor accordingly.
g. If discharge conditions exceed water quality requirements, stop work and notify the District immediately. The District supervisor will work with the wastewater treatment plant or sanitary sewer agency and the County, as needed, to resolve the issue. Discharge will not commence until directed by the District supervisor.
h. After the discharge has ended, remove pipe from sanitary manhole.
i. Complete a discharge activity report. Include any water quality monitoring results and control measure evaluations on the checklist.
j. The District will prepare a monthly inventory of discharges (along with discharge activity checklists) and submit this to the wastewater treatment plant or sanitary sewer agency.
k. Notify wastewater treatment plant or sanitary sewer agency that the discharge has ceased.

Revisions to Chapter 3, "Environmental Setting and Impact Analysis"

Section 3.0, "Introduction"

Change to Page 3.0-5:

Along the East Channel, new floodwalls downstream from Caribbean Drive would be more extensive. However, mammals or reptiles attempting to move in an east-west direction across this channel would still be able to use the Caribbean Drive bridge and the footbridge northwest of the City of Sunnyvale's Twin Creeks Sports Complex, which provide the only two existing above-water crossings of this reach. As a result, the only impediment to movement posed by the floodwalls would be to wildlife attempting to cross the channel on land; while reptiles may cross through the channel, mammals are expected to do so infrequently because most have established terrestrial movement pathways that do not require them to swim across the channel. Along the East Channel ~~next to the salt marsh harvest mouse mitigation site~~ immediately adjacent to an approximately 400-foot long stretch of the Twin Creeks Sport Complex's northeastern boundary and an approximately 775-foot long stretch of the Sunnyvale Baylands Seasonal Wetland Preserve's northern boundary (Figure 3.3-2d), the existing maintenance road levee would be raised. By raising the levee at this location, instead of installing a floodwall, no barriers to movement of the salt marsh harvest mouse and other wildlife would exist between the Bay and the Sunnyvale Baylands Seasonal Wetland Preserve (a 105-acre wetland preserve owned by the County of Santa Clara, which includes a 3.0-acre seasonal wetland restoration site, a 3.6-acre freshwater restoration site, and a 5.5-acre pickleweed habitat restoration site for the salt marsh harvest mouse). Wildlife could move up and over the levee and continue moving across the East Channel.

Section 3.1, "Aesthetics"

Impact AES-2: Permanent Alteration of the Visual Character or Quality of the Project Area, Including Scenic Vistas from Floodwalls

Change on page 3.1-36

Floodwalls in Open Space Baylands Zone

The Project component that would cause the most notable visible changes in the Open Space Baylands Zone would be the inboard and outboard floodwalls. While the Open Space Baylands Zone already has anthropogenic features (e.g., transmission lines, signage, buildings and tanks associated with the WPCP, Twin Creeks Sport Complex), floodwalls would increase the amount of vertical hardscape features present in this zone. More importantly, floodwalls would introduce an abrupt and hardened surface along the creek corridor, which didn't previously exist in the Open Space Baylands Zone. Floodwalls would generally be 3 feet tall and would be higher at road crossings to prevent flow overtopping. At the Caribbean Drive crossing of

the Sunnyvale East Channel, floodwalls would be approximately 8 feet tall. At the Carl Road crossing of the Sunnyvale West Channel, floodwalls would be approximately 7 feet tall. As described in Chapter 2, *Project Description*, art panels including visual architectural features will be incorporated into the headwalls at the Caribbean Drive and Carl Road crossings. Design of the headwalls at these locations would be subject to approval by the City of Sunnyvale and the District. Artistic treatments at these locations would improve project aesthetics in an area that is largely visible to recreationists and roadway users. The outboard floodwalls along the Sunnyvale East Channel extending north and west within the Open Space Baylands Zone (refer to Figure 2-3d) would taper down from the road crossing to an average height of 3 feet above the finished levee surface. Similarly, inboard and outboard floodwalls extending along the Sunnyvale West Channel extending north and west from the Carl Road crossing (refer to Figure 2-3a) would taper down from 7 feet tall to an average height of 4.5 feet (range from 4 to 5 feet) above the finished levee surface.

Change on page 3.1-40:

Conclusion

In general, floodwalls in the Open Space Baylands Zone would create some visual disruption, particularly by acting as a visual barrier where none previously existed, and recreational viewers are expected to be highly sensitive to this change in visual quality associated with the views. However, because the floodwalls would be relatively short and artistic panels would be incorporated into the headwalls at the Caribbean Drive and Carl Road crossings, these components would not substantially detract from the existing visual quality of the Open Space Baylands Zone. Potential impacts on visual and aesthetic resources from proposed floodwalls in the Open Space Baylands Zone are considered less than significant. Additionally, when constructing proposed floodwalls in the Open Space Baylands Zone, the District intends to use a concrete formliner that would result in a textured surface with approximately 2-inch vertical corrugated ribbing on both sides of the inboard and outboard floodwalls. This would provide visual interest and reduce glare over a flat wall surface.

Section 3.3, "Biological Resources"

Revised Figure 3.3-2d has been updated to more accurately identify existing mitigation sites in the project area.

Biological mitigation measures BIO-1, BIO-2, BIO-6, BIO-7, BIO-8 and BIO-12 have been revised as follows:

Mitigation Measure BIO-1: Implement Compensatory Mitigation for Temporal Loss of Vegetated Wetlands and Permanent Loss of Vegetated and Unvegetated Wetlands and Other Waters

Because the functions and values supplied by unvegetated "other waters" will return to pre-project conditions immediately following the completion of Project activities (i.e., there is no delay due to the need for vegetation to re-establish),

mitigation for ~~temporary impacts on vegetated wetlands and permanent impacts on both vegetated wetlands and unvegetated aquatic habitats shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed)~~ temporary or permanent impacts on unvegetated aquatic habitat shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed) to compensate for the brief temporal loss of functions and values during Project activities. Mitigation for temporary impacts on vegetated wetlands shall be provided at a ratio of 1.2:1; this ratio is higher than that for unvegetated waters to compensate for the slightly longer time required for the functions and values of vegetated wetlands to return to pre-project conditions, yet because temporarily impacted wetlands in the Project area will regenerate quickly, a higher mitigation ratio is unnecessary. Mitigation for permanent impacts on vegetated wetlands shall be provided at a ratio of 2:1; this higher ratio reflects the permanent loss of wetlands (as opposed to the temporary impacts described previously). Mitigation shall be provided via creation or restoration of wetlands/other waters. Mitigation may be achieved through one or more options, potentially including (but not limited to):

- onsite restoration or creation of wetlands or aquatic habitats (including removal of onsite fill) if feasible onsite restoration opportunities exist;
- offsite restoration/creation of wetlands;
- financial contribution to restoration programs for tidal wetland restoration, such as the South Bay Salt Pond (SBSP) Restoration Project; and/or
- purchase of mitigation credits at approved mitigation banks within the San Francisco Bay Region.

Mitigation Measure BIO-2: Conduct Fish Removal during Project Site Dewatering Activities

Prior to dewatering activities in tidal reaches, a qualified biologist would use nets to exclude fish from the construction area. During a falling tide, a block net (mesh size shall not exceed 9.5 mm to ensure that longfin smelt are adequately excluded from this area but do not become entangled) shall be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists shall walk from the upper to lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net shall be installed to isolate the construction reach. This procedure shall be repeated a minimum of three times per dewatered tidal reach to assure no green sturgeon, steelhead, or longfin smelt remain within the construction area. ~~Mesh size shall not exceed 9.5 mm to ensure that longfin smelt are adequately excluded from this area~~. Subsequently, a qualified biologist will supervise the controlled dewatering of the Project reach. Fish exclusion barriers shall be left in place until project construction activities in a reach are complete. Upon the completion of construction activities, all temporary diversion structures will be removed and flows gradually restored to the channel. Following restoration of flow to the channel, the fish exclusion barriers shall be removed under the supervision of a qualified biologist.

Mitigation Measure BIO-6: Conduct Pre-Construction Surveys for Burrowing Owls

Pre-construction surveys for burrowing owls shall be conducted prior to the initiation of all Project activities within suitable burrowing owl habitat (i.e., ruderal/ grassland habitat with burrows of California ground squirrels). A qualified biologist will conduct an initial habitat survey, mapping areas with burrows (i.e., areas of highest likelihood of burrowing owl activity) and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement) on the project site. This mapping will be conducted while walking transects throughout the entire project footprint, plus all accessible areas within a 250-foot radius from the project footprint. The centerline of these transects will be no more than 50 feet apart and will vary in width to account for changes in terrain and vegetation that can preclude complete visual coverage of the area. If suitable habitat is identified during the habitat survey, preconstruction surveys will be required. To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped. Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction. ~~Pre-construction surveys will be completed in conformance with the CDFW's 2012 guidelines (CDFG 2012). An initial habitat assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat is present in a given area. During the initial site visit, a qualified biologist will survey the entire activity area and (to the extent that access allows) the area within 250 feet of the site for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat (i.e., ruderal grasslands with burrows of California ground squirrels) is present within a given area, no additional surveys will be required. If suitable burrows are determined to be present within 250 feet of work areas, a qualified biologist will conduct three additional surveys to investigate each burrow within the survey area for signs of owl use and to determine whether owls are present in areas where they could be affected by proposed activities. The final survey shall be conducted within the 24-hour period prior to the initiation of Project activities in any given area~~. Because Project activities may be phased, these survey efforts may also need to be performed in phases to ensure that burrowing owls are not present in work areas when Project activities commence. This measure applies to the staging areas as well as the Project areas along the Sunnyvale Channels.

Mitigation Measure BIO-7: Implement Buffer Zones for Burrowing Owls

If burrowing owls are present during the non-breeding season (generally September 1 to January 31), a ~~150~~250-foot buffer zone shall be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, a reduced buffer and monitoring may be implemented as described under MM BIO-8~~then the buffer must be great enough to avoid injury or mortality of individual owls~~, or else the owls should be passively relocated as described in MM BIO-9 ~~below~~. During the breeding season (generally February 1 to August 31), a 250- foot buffer, within which no new Project-related activities will be permissible, will be maintained between Project activities and occupied nests~~burrows~~. Owls present between February 1 and August 31 will be assumed to be nesting, unless ~~and the 250- foot protected area will remain in effect until August 31. If~~ monitoring evidence indicates that the owls are no longer nesting, ~~or~~ the young owls are foraging independently, or only a single owl (rather than a breeding pair) is present after July 1st and there is no evidence that young owls are present. If no active nesting is occurring, the buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.

Mitigation Measure BIO-8: Monitor Owls during Construction

Any owls occupying the Project Area are likely habituated to frequent human disturbances throughout the year in the form of District maintenance activities and recreational use of the levee maintenance roads. As a result, they may exhibit a tolerance of greater levels of human disturbance than owls in more natural settings, and work within the standard 250-foot buffer during the nesting season may be able to proceed without disturbing the owls. Therefore, if ~~nesting~~ owls are determined to be present on the site, and Project activities cannot feasibly avoid disturbance of the area within 250 feet of the occupied nest~~burrow~~, ~~during the nesting season (i.e., February 1 through August 31) due to other seasonal constraints, a qualified biologist will be present during all activities within 250 of the nest to monitor the owls' behavior.~~construction activities within the non-disturbance buffer will be allowed during the breeding season if the following criteria are met:

- the nest is not disturbed, and
- the project proponent develops an avoidance, minimization, and monitoring plan that will be approved by the CDFW prior to project construction, and that is based on the following criteria.
    - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
    - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
    - If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.

- If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the CDFW.

Construction activities within the non-disturbance buffer during the non-breeding season will be allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites. Alternatively, the owl(s) may be passively evicted during the non-breeding season (see Mitigation Measure BIO-9).

- A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.
- If the owls are gone for at least one week, a qualified biologist may excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone may be removed and construction may continue.

~~If in the opinion of the qualified biologist, the owls are unduly disturbed (i.e., disturbed to the point of harm or reduced reproductive success), all work within 250 feet of the occupied burrow will cease, and MM 7 shall be implemented.~~

Mitigation Measure BIO-12: Maintain Buffer during Construction Adjacent to Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Habitat

During levee raising activities along the south/east bank of the East Channel near its confluence with Guadalupe Slough, starting at the eastern edge of the Twin Creeks Sports Complex and continuing eastward, a minimum 10-foot buffer, measured as the straight-line distance (e.g., diagonally/down-slope on a sloped bank) will be maintained between the outer limits of Project construction activities ~~(i.e., silt fence installation)~~ and any marsh habitat present beyond the Project boundary (i.e., in the wetland mitigation area to the south or along Guadalupe Slough to the north). Silt fences will be erected adjacent to construction areas to define the buffer and isolate potential harvest mouse habitat. In addition, Project personnel will ensure that the silt fencing in this area is sturdy and is regularly maintained so that no material falls into these wetlands during levee raising.

Change to Page 3.3-56:

Longfin smelt (state listed as threatened), green sturgeon (federally listed as threatened and a California species of special concern), and Central California Coast steelhead (federally listed as threatened) could potentially occur in the tidal reaches

of the Sunnyvale Channels infrequently and/or in low numbers (refer to Table 3.3-2 above and Appendix N). None of these species is expected to spawn in the Project Area; however, ~~foraging juvenile and adult green sturgeon may be present infrequently and in low numbers, and~~ small numbers of steelhead and longfin smelt may occasionally stray onto the Project Area. If these species were to occur in the Project Area, their presence would be limited to tidally influenced areas of the Sunnyvale Channels, which occur on the West Channel downstream of Mathilda Avenue and on the East Channel downstream of the SR 237 crossing. However, a review of the past ten years of CDFW's midwater and otter trawl survey data for longfin smelt reveals that this species has not been detected in the southern portion of San Francisco Bay between the months of May and October, inclusively. Therefore, implementation of the in-channel work window (June 15 through October 15) is expected to avoid impacts on longfin smelt.

Section 3.8, "Hydrology, Geomorphology, and Water Quality"

Impact HYD/WQ-3: *Water Quality Impacts due to Discharge of Contaminated Soil or Groundwater* starting on page 3.8-49.

Current documentation of contaminated soil and groundwater in the Project Area was reviewed for this EIR, as described in Chapter 3.7, "Hazards and Hazardous Materials." Three open, actively leaking underground fuel tanks (LUFTs) are located within 1,000 feet of the Sunnyvale Channels (SWRCB 2012). Remediation of soil and shallow groundwater contaminated by VOCs is occurring at a site located at 141 Caspian Court, adjacent to the West Channel upstream (south of) Caribbean Drive. The City of Sunnyvale ~~Landfill~~ is responsible for monitoring and treatment of VOC-contaminated groundwater leachate from the Sunnyvale Landfill in compliance with RWQCB Order No. R2-2004-0030 and the landfill Corrective Action Program and Water Quality Monitoring Plan (SCVWD 2013a). No VOCs were detected in surface water samples adjacent to the landfill, as tested in 2011. There have been no violations of the landfill permit conditions and annual inspections of the site indicate that leachate and gas capture systems are functioning (Ulrick & Associates 2014). High levels of TCE and other VOCs are present in soil and shallow groundwater due to contamination from the Middlefield Ellis Whisman and Moffett Field Superfund Sites located in Mountain View (SCVWD 2013b). While existing hazardous materials contamination has not been identified specifically within the Project Area or the Sunnyvale Channels (as shown in Figure 3.7-1), the presence of historic and existing hazardous materials in the Project vicinity indicate that previously undiscovered contaminated soil and groundwater may occur in the Project Area.

Water Discharges

As discussed in the "Environmental Setting" section above and shown in Table 3.8-5, groundwater is present within or just beneath the bed of the Sunnyvale Channels at different locations and during different times of the year. Groundwater in the Project Area is considered relatively shallow and is perched (above the channel bed) in portions of the channels during certain times of the year (see Table 3.8-5). The

District proposes to dewater in-channel construction sites before commencing construction work in the channel. Dewatering generally involves first isolating the reach where in-channel construction would occur, and then pumping the isolated water out of that reach and discharging it downstream from where construction is occurring. If groundwater is directly supplying the channel (the channel bed is lower than the groundwater table), then dewatering the channel reach could result in pumping of contaminated shallow groundwater from existing contaminated sites adjacent to the work area, including from the Sunnyvale Landfill. The discharge of contaminated groundwater to downstream reaches of the Sunnyvale Channels could significantly impact water quality in the channels and downstream receiving waters. Discharge of Sunnyvale Landfill leachate to the Sunnyvale Channels would violate conditions of the City of Sunnyvale's landfill discharge permit (RWQCB Order No. R2-2004-0030). Additionally, discharge of sediment-laden water (water that contains high concentrations of suspended solids or high turbidity) could significantly impact water quality in the channels and downstream receiving waters. As discussed below, the District would implement BMPs to prevent discharges of contaminated water during construction.

Applicable Best Management Practices (Page 3.8-51)

The District would implement the following BMPs to minimize water quality impacts during Project construction activities. Full text for each BMP is provided in Table 2-8 in Chapter 2, "Project Description."

BMP HM-9: Clean Vehicles and Equipment
BMP HM-10: Assure Proper Vehicle and Equipment Fueling
BMP HM-11: Assure Proper Vehicle and Equipment Maintenance
BMP HM-12: Assure Proper Hazardous Materials Management
BMP HM-13: Prevent Spills
BMP HM-14: Know the Spill Kit Location
BMP WQ-1: Conduct Work from Top of Bank
BMP WQ-2: Evaluate Use of Wheel and Track Mounted Vehicles in Stream Bottoms
BMP WQ-3: Assess Pump/Generator Set Operations and Maintenance
BMP WQ-4: Handle Sediments so as to Minimize Water Quality Impacts
BMP WQ-5: Avoid Runoff from Soil Stockpiles
BMP WQ-6: Stabilize Construction Entrances and Exits
BMP WQ-10: Evaluate and Select the Most Appropriate Use of Concrete Near Waterways
BMP WQ-11: Use Coffer Dams for Tidal Work Areas
BMP WQ-12: Divert/Bypass Water at Non-tidal Sites
BMP WQ-15: Manage Groundwater at Work Sites
BMP WQ-16: Avoid Erosion When Restoring Flows
BMP WQ-19: Control Emergency Discharges
BMP WQ-20: Control Unplanned Discharges
BMP WQ-24: Evaluate Use of Discharge Flow Paths – Check Filters
BMP WQ-25: Evaluate Use of Discharge On-Line Filter Systems
BMP WQ-27: Evaluate Use of Discharge Surface Protection - Armoring
BMP WQ-28: Evaluate Use of Discharge Surface Protection – Flow Diversion
BMP WQ-29: Evaluate Use of Discharge Storm Drain Curb & Drop Inlet

Protection
BMP WQ-30: Discharges to Sanitary Sewer System
BMP WQ-40: Prevent Water Pollution
BMP WQ-41: Prevent Stormwater Pollution

Conclusions

Several Project construction activities have the potential to result in temporary changes to the water quality of the Sunnyvale Channels and Pond A4. Project construction activities have the potential to expose and loosen soils, leaving them susceptible to erosion from surface runoff and discharge into surface waters. Direct discharges of highly turbid water to the Sunnyvale Channels could also occur during channel dewatering. Contaminated soil exposed during Project construction could also be discharged into surface waters. Finally, hazardous materials commonly used with construction equipment could spill and be susceptible to discharge into surface waters.

BMPs WQ-11, WQ-12, WQ-15, and WQ-16 are channel dewatering procedures to protect water quality in tidal and non-tidal work areas.

BMPs WQ-1, WQ-2, WQ-4, WQ-5, WQ-6, WQ-19, WQ-20, WQ-24, WQ-25, WQ-27, WQ-28, WQ-29, WQ-30, WQ-40, and WQ-41 are measures to avoid and minimize water quality impacts due to ground disturbing activities, including handling of soil and discharges of water from the construction site. BMP WQ-30 specifically describes the procedures for discharging project construction water, such as that dewatered from a work site, to the sanitary sewer for treatment and discharge to the City of Sunnyvale's wastewater treatment plant. As described in the BMP, the District will obtain approval from the City for discharges to the sanitary sewer. Treatment plant approval requires water quality testing to demonstrate that the discharge will not exceed the City's treatment capabilities or discharge regulations. In order to approve the discharge, the discharge must not:

A) Exceed the discharge pollutant limits in Sunnyvale Municipal Code Section 12.12.120 (Available: http://qcode.us/codes/sunnyvale/view.php?topic=12-12_12-12_12_120)
B) Create a nuisance or damage the sewer system
C) Endanger workers in the sewer system or at the Water Pollution Control Plant

BMPs HM-9, HM-10, HM-11, HM-12, HM-14, and HM-14 are measures to prevent against accidental discharge of hazardous materials associated with construction equipment. These measures also include procedures for proper clean up and reporting if an accidental spill occurs.

BMP WQ-10 is a measure to ensure concrete pouring activities do not impact water bodies.

The use of the above BMPs would reduce potentially significant impacts on water quality due to Project construction activities. However, these BMPs would not reduce potential water quality impacts due to handling and discharge of

contaminated soil and groundwater encountered during construction. To reduce this potentially significant impact to a less-than-significant level, the District would implement the following MMs to reduce the potential for exposure and release of contaminated soil and groundwater encountered during construction.

Mitigation Measure HM-1: Conduct a Phase I and Phase II Environmental Site Assessments and Implement Site Remediation Actions Prior to Construction
Refer to Chapter 3.7 "Hazards and Hazardous Materials" Impact HM-1 for the full text of this MM.

The implementation of MM HM-1 would identify the extent of existing contaminated soil and groundwater and implement ~~measures in accordance with regulatory procedures~~measures to ensure Project construction activities would protect the environment and prevent against threats to public health and safety. With the implementation of this MM, potential impacts on water quality would be reduced to a less-than-significant level.

Section 3.9, "Land Use and Planning"

Before **Impact LU-2: Project Tree Removal Conflicts with Applicable Land Use Plans or Policies** on page 3.9-16, add:

Impact LU-2: Use of Maintenance Roads for Recreation Conflicts with Applicable Land Use Plans or Policies – Less than Significant

As described in Chapter 2, "Project Description," the District may enter into a Joint Use Agreement (JUA) with the City of Sunnyvale so that some of the maintenance roads could be officially used as recreational trails. Paving of maintenance roads for recreational purposes would occur along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive. Under the JUA, the District would retain ownership of the land while the City of Sunnyvale would assume liability and maintenance for the public trails.

Applicable District BMPs

No District BMPs are applicable to this impact.

Conclusion

The change in land use of the roads from maintenance to public recreation trail would be consistent the City of Sunnyvale's 2006 Bicycle Plan (City of Sunnyvale 2006) and the Moffett Park Specific Plan; therefore, this impact is considered less than significant.

Change **Impact LU-2: Project Tree Removal Conflicts with Applicable Land Use Plans or Policies** on page 3.9-16 as follows:

> **Impact LU-~~2~~3: Project Tree Removal Conflicts with Applicable Land Use Plans or Policies** – Less than Significant

Section 3.10, "Noise and Vibration"

Change **Impact NO-4: Permanent Alteration of Ambient Noise Levels from Project Floodwall and Headwall Components** on page 3.10-16 as follows:

> **Impact NO-4: Permanent Alteration of Ambient Noise Levels from Project ~~Floodwall and Headwall~~ Components** – Less than Significant

Add the following paragraph directly before "Applicable Best Management Practices" on page 3.10-17:

> As described in Chapter 2, "Project Description," the District may pave several stretches of its existing gravel maintenance roads that are already commonly used for bicycling, hiking, and dog walking. Paving of maintenance roads for recreational purposes would occur along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive.

Change the following on the middle of page 3.10-17:

> ***Conclusion***
>
> Floodwalls are not expected to cause a perceptible noise increase over the existing ambient noise levels. Headwalls are expected to cause, at most, a negligible perceptible noise increase over the existing ambient noise levels on roadways. Noise from recreational use of the sections where the maintenance roads may be paved would not cause a perceptible noise increase over the existing ambient noise levels in the industrial areas of the East and West Channels. Along the East Channel between the John W. Christian Greenbelt and Tasman Drive, where the maintenance road would be officially accessible for public recreational use in a residential area, the outboard floodwalls would buffer the noise from nearby homes and would be similar to existing ambient noise levels. Therefore, permanent impacts to ambient noise levels from floodwalls and headwalls are considered less than significant.

Section 3.11, "Recreation"

Additional paragraph to **Impact REC-2: Permanent Loss or Deterioration of Public Recreational Opportunities Resulting from the Proposed Project**, on page 3.11-13, directly before the "Conclusion" paragraph:

The City of Sunnyvale's 2006 Bicycle Plan (City of Sunnyvale 2006) identified the need for additional recreational trails to increase bicycling opportunities. The District and the City of Sunnyvale may enter into a Joint Use Agreement (JUA) to provide public access to some of the District's maintenance roads for the purpose of bicycle use. If the two agencies enter into a JUA, the District will pave the gravel maintenance roads along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive. The paving of channel maintenance roads for recreational improvements is well aligned with the District's Clean, Safe Creeks and Flood Protection Plan (Santa Clara Valley Water District 2000) to provide recreational opportunities along watersheds, stream corridors, and flood protection levees (see Section 1.2.1, "Project Background").

Change to "Conclusion" under **Impact REC-2: Permanent Loss or Deterioration of Public Recreational Opportunities Resulting from the Proposed Project**, on page 3.11-13:

Conclusion

Parks and public-use areas would not be altered by the Proposed Project. Following construction, recreational activities on the Bay Trail would return to existing conditions. The permanent property acquisitions under the Proposed Project would not adversely affect existing authorized recreational opportunities in the project area. If portions of the maintenance roads are paved, the Proposed Project would enhance recreational use in several locations. Therefore, the potential impact of the Project on long-term recreational opportunities would be less than significant.

Section 3.12, "Traffic and Transportation"

Change to **Impact TR-1: Temporary Construction Traffic Generation in Exceedance of Roadway LOS Standards or Substantial Increase in Traffic** – Less than Significant with Mitigation, page 3.12-14, second paragraph:

As discussed in the "Environmental Setting" section, above, Hwy 101, SR 237, SR 85, and I-280 in the Project vicinity operate at LOS F during the peak hours. Based on the significance threshold defined by the CMP, a project would result in a significant traffic impact if the project would add more trips than 1% of the peak-hour freeway capacity on freeway segments that operate at LOS F (VTA 2009). As shown in Table 3.12-4, Project construction is anticipated to generate a combined maximum of up to 116 vehicle trips during peak hours and a combined average of about 74 vehicle trips during peak hours. When the trips are added to the individual freeway segments there would be a maximum of 33 trips per hour and an average of 21 trips per hour. The Project hourly trips, when combined with the individual freeway segments, are below the VTA threshold for CMP roadways and below Caltran's Traffic Impact Study guide threshold of 50 trips per hour on a freeway segment. The trips added to the individual freeway segments would be less than 1% peak-hour capacity of these freeways. Therefore, construction-related traffic is not expected to significantly degrade the operation or LOS of the freeways. Calculation of peak-hour

freeway capacities and the added construction trips on these freeways are included in **Appendix K-2**.

Change to Page 3.12-16, third paragraph

Vehicle Access during Carl Road Bridge Replacement

The Carl Road bridge crossing over the West Channel is currently used by the City to access treatment ponds ~~western landfill~~ associated with the City's Water Pollution Control Plant (WPCP), located to the north of this area near Pond A4. To maintain access to the treatment ponds during the bridge replacement, the west bank levee/maintenance road between Carl Road and Caribbean Drive would be constructed prior to the reconstruction of the Carl Road box culvert.

The City of Sunnyvale typically uses the Carl Road to Caribbean reach ~~for approximately three vehicle trips a day~~ to access ancillary facilities associated with the WPCP. During construction of the levee enlargement along the Caribbean reach downstream of Carl Road bridge ~~this reach~~, the SCVWD ~~City~~ ~~would~~ will coordinate the construction schedule with the City and ~~have to find~~ provide an alternative route for ~~these three trips per day~~ employee and maintenance vehicles, as specified in the Mitigation Measure TR-1 below, to access the ancillary facilities. A likely alternative may be conducted by traveling west/north on Caribbean Drive from the WPCP and then turning west onto 1st Avenue. The detour of WPCP employee and maintenance vehicles ~~three trips per day~~ is anticipated to be short-term and is not expected to significantly degrade the traffic operation ~~have an unnoticeable and unsubstantial effect on existing traffic levels~~ along the detour route to an unacceptable level.

Change to **Mitigation Measure TR-1: Develop and Implement a Site-Specific Traffic Control Plan,** page 3.12-18, first paragraph:

The District will develop a site-specific traffic control plan with the following mitigating actions to minimize the effects of Project construction activities and traffic on surrounding roadways, bicycle and pedestrian facilities, transit services, and emergency access. The plan, to be approved by the City of Sunnyvale, will be prepared by a licensed traffic engineer in accordance with the California Manual on Uniform Traffic Control and the traffic management plan requirements of corresponding jurisdictions ~~and be approved by the City of Sunnyvale~~.

Section 3.13, "Utilities and Service Systems"

Change in the Stormwater Conveyance Facilities section on page 3.13-6:

The City operates approximately ~~150~~ 300 miles of storm drains with two pump stations, which collect runoff from low-lying urban areas and discharge flows to creeks and sloughs at higher elevations (City of Sunnyvale 2011).

Revisions to Chapter 4, "Other Statutory Requirements"

Change to the last row in **Table 4-2** on page 4-9:

Table 4-2. List of Reasonably Foreseeable Future Projects that May Cumulatively Affect Resources of Concern for the Proposed Project

City of Sunnyvale Joint Use Agreements with the Santa Clara Valley Water District	Subject to approval by the District and the City of Sunnyvale, ~~T~~the ~~District and City of Sunnyvale~~ two agencies may enter into a Joint Use Agreement (JUA) to provide public access to the District's maintenance roads along the Sunnyvale Channels for recreational use. If a JUA is established, the District would pave several stretches of its existing gravel maintenance roads. The following reaches along the East Channel would be paved: from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive. Maintenance roads along the West Channel from N. Mathilda Avenue to Caribbean Drive would be paved. Paved maintenance roads would comply with specifications for Class I Bike Facilities prescribed the *City of Sunnyvale 2006 Bicycle Plan* (City of Sunnyvale 2006) and the potential impacts have been disclosed in the FEIR. No motorized vehicles would be allowed on the paved maintenance road reaches.

Change to the third paragraph under **Cumulative Impact REC-1: Impacts on Recreation**, on page 4-19:

If a Joint Use Agreement (JUA) is established between the District and the City of Sunnyvale, the District would pave several stretches of its existing gravel maintenance roads to provide authorized public access once construction is complete. The following reaches would be paved: along the East Channel from the John W. Christian Greenbelt to Tasman Drive and from Moffett Park Drive to Caribbean Drive, and along the West Channel from N. Mathilda Avenue to Caribbean Drive. Paved maintenance roads would comply with specifications for Class I Bike Facilities prescribed the City of Sunnyvale 2006 Bicycle Plan (City of Sunnyvale 2006) and further support the City's commitment to encourage bicycling and provide access to open space and recreation facilities. The scope of recreational activities on the newly paved maintenance road reaches are anticipated to reflect the level and type of activities that currently occur under existing conditions, including biking, jogging, and walking. No motorized vehicles would be allowed on the paved reaches. Potential impacts to recreation have been evaluated in the FEIR, and ~~I~~if implemented, this impact would benefit recreational communities in the City and region. However, because it is not certain whether a JUA will be established, the conclusion related to cumulative recreation impacts remains that the Proposed Project would not make a considerable contribution, as described in the previous paragraph.

Revisions to Chapter 7, "References"

The following references have been added to the list of references for Chapter 3.3 Biological Resources:

Moyle, P. B., R. M. Yoshiyama, J. E. Williams, & E. D. Wikramanayake. 1995. Fish Species of Special Concern in California. Second Edition. June. Prepared for the California Department of Fish and Game, Inland Fisheries Division.

The following references have been added to the list of references for Chapter 3.8 Hydrology, Geomorphology & Water Quality:

Ulrick & Associates. 2014. 2013-14 Annual Self-Monitoring Report Corrective Action Program-City of Sunnyvale Landfill. Prepared for City of Sunnyvale. April 30, 2014. Orinda, CA.

Personal Communication: Ulrick, James.2014. (Ulrick & Associates) pers. comm. via email to Patrick Stanton (SCVWD) July 10, 2014.

4.2 DEIR Changes Initiated by Lead Agency

Chapter 2, "Project Description"

An additional area of rock slope protection has been added to the Proposed Project. A 170-foot reach of the Sunnyvale East Channel between the Union Pacific Railroad/Caltrain tracks and Kifer Road will be improved with rock slope protection on the bed only. Approximately 160 cubic yards of rock fill will be added over approximately 1,700 square feet in this reach. This channel improvement will align with the rock slope protection on the banks which is already identified for this reach. This new rock slope protection site would not substantially change the estimated construction timing, construction equipment use, or quantity of materials imported for the Project.

As a result of this change, **Figure 2-3g** has been updated to indicate that a 170-foot reach of the Sunnyvale East Channel between the Union Pacific Railroad/Caltrain tracks and Kifer Road will be improved with rock slope protection on the bed only.

The second sentence of the first paragraph under the heading "Rock Slope Protection on Stream Banks" on DEIR page 2.56 has been updated as follows:

> Rock slope protection would be used at several locations along the Sunnyvale Channels (see Figures 2-3a through 2-3i~~2-3f~~).

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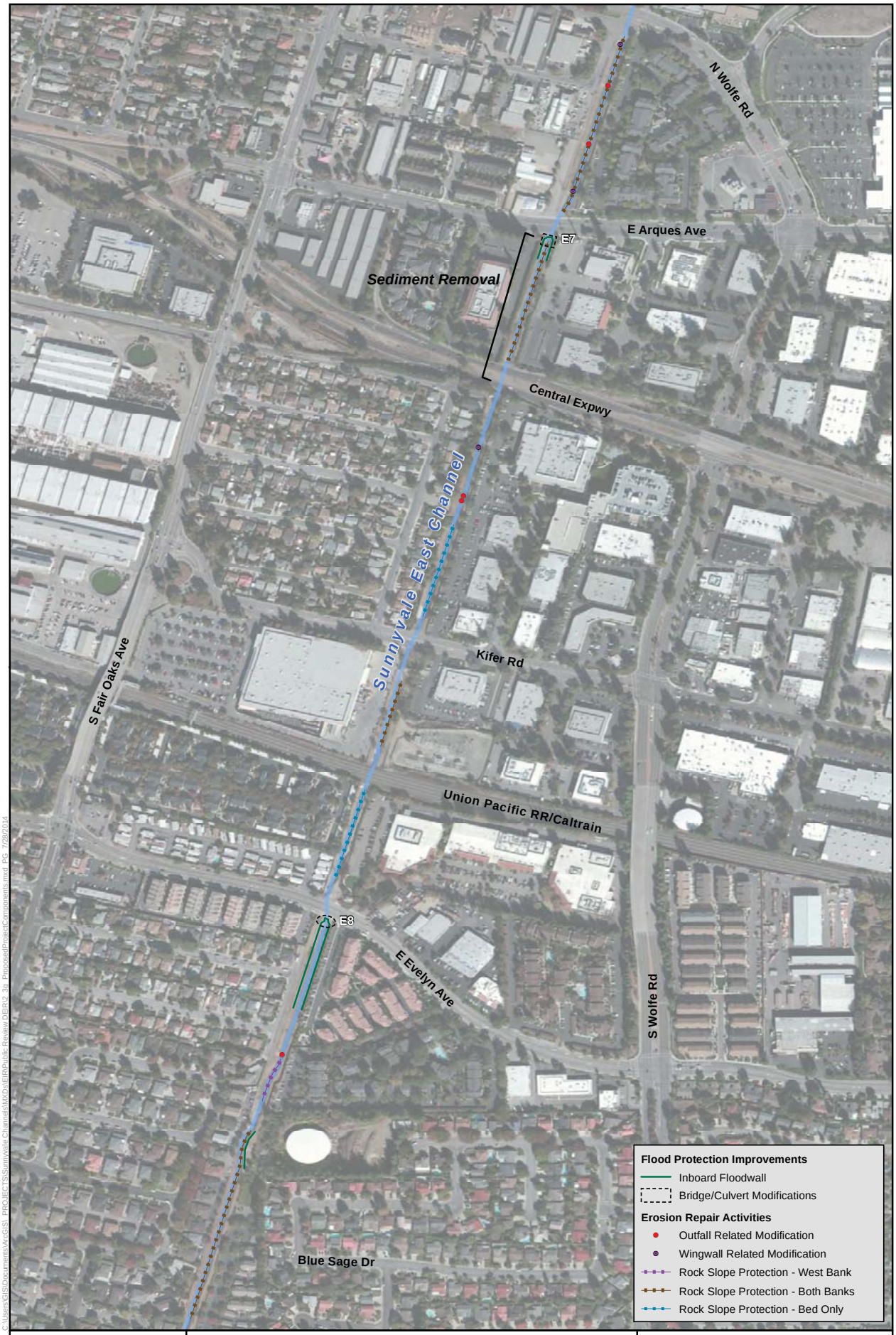

Horizon WATER and ENVIRONMENT

Sources: SCVWD 2012; Bing Maps

Figure 2-3g
Proposed Project Components

Prepared for:
Santa Clara Valley Water District
August 2014

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N

Sunnyvale East and West Channel Flood Protection Project

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Chapter 3, Section 3.2 "Air Quality"

The following text has been added to DEIR page 3.2-4 to reflect updates to the status of Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines.

BAAQMD CEQA Guidelines

The BAAQMD has developed CEQA guidelines and thresholds of significance to assist local jurisdictions in evaluating potentially adverse impacts on air quality. The most recent CEQA guidelines were updated in 2012 (BAAQMD 2012a) and the most recent thresholds were adopted in 2010. BAAQMD's adoption of the 2010 thresholds of significance (2010 Thresholds) was challenged in court (*California Building Industry Association v. Bay Area Air Quality Management District*, Superior Court Alameda County, March 5, 2012, No. RG10-548693), but a First District Court of Appeal ruling recently affirmed the agency's adoption of the thresholds (218 Cal. App. 4th 1171, August 13, 2013), finding that they were adopted based on substantial evidence and their adoption is not subject to CEQA review. <u>The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review, and the matter is currently pending with the Supreme Court.</u>

Chapter 3, Section 3.3 "Biological Resources"

The biological resources discussion in the DEIR has been updated to reflect the project description change described below.

Table 3.3-2: *Special-Status Animal Species, ESA/CESA Status, Habitat Description, and Potential for Occurrence within the Sunnyvale Channels Project Area* has been updated as shown below.

Table 3.3-2. Special-Status Animal Species, ESA/CESA Status, Habitat Description, and Potential for Occurrence within the Sunnyvale Channels Project Area

Name	ESA/ CESA Status	Habitat	Potential for Occurrence in the Project Area
Federal or State Endangered, Threatened, or Candidate Species			
Green sturgeon (*Acipenser medirostris*)	FT, CSSC	Spawns in large river systems such as the Sacramento River; forages in nearshore oceanic waters, bays, and estuaries.	**Absent as Breeder.** All tidally influenced areas of the San Francisco Bay up to the elevation of mean higher high water are designated as critical habitat for this species. This includes the tidal portions of Sunnyvale East and West Channels. However, there have been no recorded occurrences of green sturgeon south of the Dumbarton Railroad Bridge, or in the vicinity of the Sunnyvale Channels project area. Green sturgeon are unlikely to occur in the Sunnyvale Channels due to poor habitat conditions, including the channel's relatively narrow width, freshwater nature, and lack of spawning conditions (they prefer larger rivers with swifter currents and large cobble beds) (Moyle, et. al. 1995). It is unlikely that foraging juvenile or adult green sturgeon would enter the Sunnyvale Channels from the open waters of the Bay. In the rare event that an individual would find their way into the Sunnyvale Channels, their presence would be limited to the tidal zones (i.e., downstream of the SR 237 crossing of the East Channel, and downstream of Java Drive within the West Channel).~~Known to occur in the San Francisco Bay, though it apparently occurs only as a rare, nonbreeding visitor to the South Bay. Unlikely to occur in the Sunnyvale Channels due to their narrow, freshwater nature and lack of suitable spawning conditions. Foraging juvenile and adult green sturgeon could enter the lower portions of the Sunnyvale Channels from the open waters of the Bay, albeit infrequently and in low numbers, if at all. Should stray individuals occur within the Sunnyvale Channels, their presence would be limited to reaches of tidal influence (i.e., downstream of the SR 237 crossing of the East Channel, and downstream of Java Drive within the West Channel). All tidally influenced areas of the San Francisco Bay, up to the elevation of mean higher high water, including all portions of the Sunnyvale Channels located upstream to the upper limits of tidal action, have been designated as critical habitat for this species.~~

The last sentence of the fish habitat impact methodology description on page 3.3-43 has been updated to adjust the total length of fish habitat that would be affected:

> Overall, approximately 15,247~~15,077~~ linear feet (2.89~~2.86~~ miles) of existing erosional sites would be repaired by the Proposed Project.

The last paragraph on page 3.3-45 for Impact BIO-1: *Loss of Temporary Disturbance of Wetlands and Other Waters* has been updated to adjust the amount of permanent impacts on wetlands and other waters due to placement of rock in the project area.

> Permanent losses would occur due to placement of rock or concrete on the bed of 2,679~~2,180~~ linear feet of existing earthen channel, placement of rock on the bed and one bank of 646 linear feet of existing earthen channel, and placement of rock on the bed and both banks of 11,291 linear feet of existing earthen channel. Permanent losses would also occur as a result of slight extensions of existing culverts and wingwalls. These impacts are considered permanent because they would result in the replacement of wetland and aquatic habitat by rock or concrete. In total, the Project would result in 3.94~~3.90~~ acres of direct permanent impacts on wetlands and other waters. These impacts include 0.21 acre of permanent impacts to tidal wetlands and waters, and 3.73~~3.69~~ acres of permanent impacts to non-tidal wetlands and waters. Nevertheless, levee modifications and placement of rock slope protection would result in some long-term improvement of water quality in wetlands and other waters by reducing erosion and resulting sediment inputs. However, this beneficial impact would be offset to some extent by a reduction in vegetated wetlands, which provide sediment-holding services.

The last paragraph on page 3.3-60 for Impact BIO-5: *Impacts on Western Pond Turtles* has been updated to adjust the amount of anticipated temporary impacts on aquatic habitat due to channel dewatering.

> Instream areas that provide foraging habitat for turtles may be temporarily lost during bridge/culvert modifications and levee widening (both of which are proposed in the northern portion of the West Channel) and sediment removal (proposed between Caribbean Drive and Carl Road on the West Channel). Dewatering activities (refer to BMPs identified for this impact, below) would also result in a temporary loss of aquatic habitat (up to 4.66~~4.62~~ acres). However, dewatering activities would be phased over a two-year period, would only occur in the summer months of each construction year, and would only affect small areas of each channel at any time. Thus, given that this habitat is expected to be seldom used by small numbers of turtles, would continue to be suitable habitat following construction, and given the abundance of suitable aquatic habitat in the Project vicinity, temporary loss of aquatic habitat as a result of the Proposed Project is not expected to result in a substantial adverse effect on the western pond turtle population in the Project Area.

The last paragraph on page 3.3-71, which ends at the top of page 3.3-72, in the conclusion discussion for Impact BIO-7: *Impacts on the White-tailed Kite, Loggerhead Shrike, and Bryant's Savannah Sparrow* has been updated to add clarification.

> Although BMP BIO-8 states that no birds, nests with eggs, or nests with hatchlings would be disturbed, it does not specify how disturbance would be prevented. Simple avoidance of the physical disturbance of an active nest is not sufficient to assure that Project activities would not result in loss of eggs or young as a result. As described under Determination of Impacts to Wildlife and Fisheries above, the initiation of new activities near an active nest may disturb the birds to the point of abandonment of the eggs or chicks. However, BMP BIO-8 does not require the surveys to include areas adjacent to the Project Area.~~; and therefore~~Therefore, if nests in adjacent areas are~~may be~~ disturbed by Project construction activities, a potentially significant impact would result. Implementation of Mitigation Measures BIO-4 and BIO-5 would reduce impacts on the white-tailed kite, loggerhead shrike, and Bryant's savannah sparrow to less-than-significant levels.

The conclusion statement discussing mitigation measures prescribed for Impact BIO-8: *Impacts on Burrowing Owls*, on page 3.3-79 has been updated to clarify the mitigation ratio, as shown below.

> The mitigation ratio for permanent loss of foraging habitat used by breeding owls reflects the rarity of the species in the South San Francisco Bay area, its declining population trends, and the importance of maintaining foraging habitat for burrowing owls in areas that the species still occupies (all of which justify a ratio greater than 1:1). However, a ratio higher than 2:1 would be unnecessary given that the occupied habitat to be impacted represents a very small proportion of foraging habitat on and adjacent to the former landfills, and given that nesting by burrowing owls is unlikely to occur in the immediate Project footprint owing to disturbance by recreational use of District maintenance roads. Thus, mitigation will be provided at a ratio of 2:1.

Chapter 5, "Alternatives"

The discussion of project alternatives considered and dismissed in Section 5.5 has been updated to add clarification.

The last paragraph of the description of the Earthen Channel Restoration/Bench Construction Alternative on page 5-11 has been updated to clarify the mitigation ratio, as shown below.

> This alternative was dismissed from consideration because the Project easements, located between the channels and existing adjacent urban development, do not provide adequate floodplain width or right-of-way to construct benches and set back the existing maintenance roads/levees. To implement this alternative, the District would need to acquire land along the entire length of both channels to have enough space to construct benches to increase the channel flood conveyance capacity. Though an economic analysis for this alternative has not been conducted,

considering the existing scale of development in the project area and the large amount of land that would be required to meet the project goals, the cost of this alternative would be substantially greater than the Proposed Project. Cost is an important factor since the Project is funded through the CSC Plan. As such, this alternative is considered infeasible.

Chapter 5
Report Preparation

Santa Clara Valley Water District

5750 Almaden Expressway
San Jose, CA 95119-3686
(408) 265-2600

Tiffany Hernandez	Environmental Planner
Stephen Ferranti	Engineering Unit Manager
Patrick Stanton	Senior Project Manager
Emily Zedler	Assistant Engineer
Metra Valle	Assistant Engineer
Navroop Jassal	Wildlife Biologist
Patrick Key	Supervising Engineering Technician

Horizon Water and Environment, LLC

180 Grand Avenue, Suite 1405
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Ken Schwarz	Principal, Project Director
Jill Sunahara	Senior Associate
Corinna Lu	Senior Associate
Patrick Donaldson	Analyst

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(Biology)

983 University Avenue, Building D

Los Gatos, CA 95032
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Steve Rottenborn	Principal, Wildlife Ecology
Ginger Bolen	Senior Wildlife Ecologist

ICF International

(Aesthetics, Cultural Resources, Noise, Traffic and Transportation)

75 East Santa Clara Street, Suite 300
San Jose, CA 95113
(408) 216-2800

Jennifer Stock	Visual Resource Specialist
Kai-Ling Kuo	Traffic and Noise Specialist
Joanne Grant	Cultural Resources Specialist
Aisha Fike	Historian

Appendix A

DEIR Notice of Availability and Distribution List

Notice of Availability

Draft Environmental Impact Report

(State Clearinghouse No. 26074002)

Santa Clara Valley Water District

Topic: Sunnyvale East and West Channels Flood Protection Project

What: The proposed Sunnyvale East and West Channels Flood Protection Project (Project) would provide flood protection for residents, businesses, and infrastructure along a 9.5 mile length of the Sunnyvale East and West channels in the cities of Sunnyvale and Cupertino. The Project consists of developing new flood protection infrastructure necessary to provide 100-year riverine flood protection, developing water quality improvements where possible, and making recommendations for recreational improvements. The proposed Project would include floodwalls, levee and maintenance road improvements, bridge/culvert modifications, and sediment removal. The Project also includes repairing and stabilizing several stream bank sections that are unstable and actively eroding.

Why: Pursuant to the California Environmental Quality Act, the District, as the lead agency for the Project, has prepared a Draft Environmental Impact Report (DEIR) to evaluate environmental impacts of the proposed Project. The DEIR identified potentially significant environmental impacts associated with aesthetics, air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazardous materials, hydrology/water resources, noise and vibration, land use, public utilities, recreation, and traffic. The majority of impacts were determined to be less than significant after the implementation of mitigation measures proposed for the Project.

Construction impacts related to violation of applicable air quality and noise/vibration standards were determined to be significant and unavoidable even after implementation of air quality and vibration mitigation measures.

Public Review: The Draft EIR and all related documents can be reviewed on any District business day between the hours of 7:30 a.m. and 5:00 p.m., Monday through Thursday, at the District's headquarters building, located at 5750 Almaden Expressway, San Jose, CA 95118. In addition, the District has developed a Web page dedicated to the Proposed Project where individuals can access Project documents and keep informed of the overall progress and upcoming scheduled events: **http://www.valleywater.org/service/SunnyvaleEastandWest.aspx.** The public comment period on the Draft EIR closes at 5 p.m. on December 15, 2013.

Public Meeting: In conjunction with the public review, the Water District will also conduct a public meeting to take comment on the DEIR on Wednesday November 20, 2013, at 6:30 pm, at Fairwood Elementary School (1110 Fairwood Ave) in Sunnyvale.

Contact: Comments on the Draft EIR should be submitted via mail or electronically, by **5 p.m. on December 15, 2013**, to:

Santa Clara Valley Water District Attention: Tiffany Hernandez 5750 Almaden Expressway San Jose, CA 95118	Access Valley Water clients.comcate.com/newrequest.php?id=80 Select the "Public review documents" tab, then select the "Sunnyvale East and West" tab.

For further information please contact **Tiffany Hernandez** at **(408) 265-2607, ext. 3094**, or by email at **thernandez@valleywater.org**.

Notice of Availablity Distributed via Mail

First Name	Last Name	Organization/ Agency/Group	Address	City	State	Zip Code
Rose	Bullinger	Birdland Neighbors	1501 Meadowland Lark Lane	Sunnyvale	CA	94087
Robert	Bemis	Elks Lodge #2128	375 N. Pastoria Ave	Sunnyvale	CA	94086
Will & Barb	Marshman	Gavello Glen Neighborhood Association	806 Pierino Avenue	Sunnyvale	CA	94086
Raymond	Skitt	Kiwanis Club of Sunnyvale	P.O. box 61172	Sunnyvale	CA	94088
Micheal	Majchrowicz	Lakewood Village Neighborhood Association	1293 Palamos Ave	Sunnyvale	CA	94089
Jed	Cyr	Mid-Peninsula Regional Open Space District	795 S Wolfe Rd	Sunnyvale	CA	94086
Bess	Baker	Quota International of Sunnyvale	125 N. Mary Ave. #64	Sunnyvale	CA	94086
Irene	Castro	Raynor Park Neighborhood Association	1410 Navarro Drive	Sunnyvale	CA	94087
Diane	McBride	Resident	Egret Street	Sunnyvale	CA	
Tara	Martin-Milius	San Miguel Neighbors Association	909 Amador Avenue	Sunnyvale	CA	94086
Bob	DeGrasse	Sertoma Club of Sunnyvale	PO Box 70745	Sunnyvale	CA	94086
Adolfo	Torres	Suncrest Villa HOA	505 W. Olive Ave. #300	Sunnyvale	CA	94086
Suzi	Blackman	Sunnyvale Chamber of Commerce	260 S. Sunnyvale Ave., Ste. 4	Sunnyvale	CA	94086
David	Zirkel	Sunnyvale Sunrise Rotary	519 S. Murphy Ave	Sunnyvale	CA	94086
Kathy	Buckley	Sunset Oaks Homeowners	675 Picasso Terrance	Sunnyvale	CA	94087
Susan	Liu	Victory Village Neighborhood Association	813 Birch Avenue	Sunnyvale	CA	94086
Anthony	Spitaleri	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
Christopher R.	Moylan	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
John N.	Howe	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
David	Whittum	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
Otto	Lee	City of Sunnyvale	P.O. Box 3707	Sunnyvale	CA	94088
Ron	Swegles	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
Melinda	Hamilton	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
Mark	Bowers	City of Sunnyvale	456 West Olive Avenue, P.O. Box 3707	Sunnyvale	CA	94008
Lorrie	Gervin	City of Sunnyvale	P.O. Box 3707	Sunnyvale	CA	94088
Gary	Luebbers	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94086
Robert	Paternoster	City of Sunnyvale	P.O. Box 3707	Sunnyvale	CA	94088
Mark	Rogge	City of Sunnyvale	456 West Olive Avenue, P.O. Box 3707	Sunnyvale	CA	94088
Marvin A.	Rose	City of Sunnyvale	P.O. Box 3707	Sunnyvale	CA	94088
Michael	Chan	City of Sunnyvale	456 West Olive Avenue, P.O. Box 3707	Sunnyvale	CA	94008
Manny	Kadkhodayan	City of Sunnyvale	456 West Olive Avenue, P.O. Box 3707	Sunnyvale	CA	94008
Kristy	McCumby	City of Sunnyvale	P.O. Box 3707	Sunnyvale	CA	94088
Tony	Pineda	City of Sunnyvale	221 Commercial Street, P.O. Box 3707	Sunnyvale	CA	94088
William	Theyskens	City of Sunnyvale	456 West Olive Avenue, P.O. Box 3707	Sunnyvale	CA	94008
Eric	Tokutomi	City of Sunnyvale	221 Commercial Street, P.O. Box 3707	Sunnyvale	CA	94088
Tara	Martin-Milius	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
Jack	Witthaus	City of Sunnyvale	456 W. Olive Avenue	Sunnyvale	CA	94088
Lisa	Killough	Santa Clara County Parks and Recreation Dept.	298 Garden Hill Drive	Los Gatos	CA	95032
Jim	O'Connor	Santa Clara County Parks and Recreation Dept.	298 Garden Hill Drive	Los Gatos	CA	95032
Kimberly	Brosseau	Santa Clara County Parks and Recreation Dept.	298 Garden Hill Drive	Los Gatos	CA	95032
Paul	Rosenbloom	Moore Iacofano Glotsmand, Inc.	800 Hearst Avenue	Berkeley	CA	94710
Bob	Batha	Bay Conservation and Development Commission	50 California Street, Suite 2600	San Francisco	CA	94111

First Name	Last Name	Organization/ Agency/Group	Address	City	State	Zip Code
William	Hurley	San Francisco Regional Water Quality Control Board	1515 Clay Street, Suite 1400	Oakland	CA	94612
Maggie	Beth	San Francisco Regional Water Quality Control Board	1515 Clay Street, Suite 1400	Oakland	CA	94612
Gary	Arnold	California Transporation Agency	111 Grand Avenue	Oakland	CA	94625-0660
Carl	Wilcox	California Department of Fish and Wildlife	7329 Silverado Trail	Napa	CA	94558
Tami	Schane	California Department of Fish and Wildlife	7329 Silverado Trail	Napa	CA	94558
Luisa	Valiela	Environmental Protection Agency	75 Hawthorne Street	San Francisco	CA	94105
Gary	Stern	NOAA National Marine Fisheries Service	777 Sonoma Ave, Room 325	Santa Rosa	CA	95404
Darren	Howe	NOAA National Marine Fisheries Service	777 Sonoma Ave, Room 325	Santa Rosa	CA	95404
Lisa	Mangione	Unitied States Army Corps of Engineers	1455 Market Street	San Francisco	CA	94103
Paula	Gill	Unitied States Army Corps of Engineers	1455 Market Street	San Francisco	CA	94103
Vincent	Griego	United States Fish and Wildlife Service	2800 Cottage Way	Sacramento	CA	95825
Ryan	Olah	United States Fish and Wildlife Service	2800 Cottage Way	Sacramento	CA	95825
		Santa Clara County Planning Department	East Wing, 7th Floor 70 West Hedding Street	San Jose	CA	95110

Notice of Availablity Distributed via Email

First Name	Last Name	Organization/ Agency/Group
Jack	Kroll	Braly Corners Neighborhood Association
Monica	Davis	Charles Street 100
Carla	Klein	Cherry Orchard Neighborhood Association
Reid	Myers	Cumberland South Neighborhood Association
Phil	Quon	Cupertino Union School District
Tom	Craig	Heritage District Neighborhood Association
Kitty	Chuang	Ortega Park Neighborhood Association
Joseph	Dittenberner	Resident
Sandra	Werner	Resident
Don R.	Thomas	Stratford Gardens
Amit	Srivastava	SunnyArts
Joseph	Rudnicki	Sunnyvale School District
Gopal	Patangay	Sunnyvale West Neighborhood Association
Connie	Portele	Wrightmont Corner
Dan	Hammons	City of Sunnyvale
Judy	Chu	City of Sunnyvale
Jim	Craig	City of Sunnyvale
Mariya	Hodge	City of Sunnyvale
Shaunn	Mendrin	City of Sunnyvale
Chuck	Neumayer	City of Sunnyvale
Hira	Raina	City of Sunnyvale
D. Scott	Russell	City of Sunnyvale
Bob	Switzer	City of Sunnyvale
Jack	Witthaus	City of Sunnyvale
Alok	Lathi	Mid-Peninsula Housing Coaliton
Laura	Thompson	San Francisco Bay Trail
Patrycja	Bossak	San Francisco Bay Trail
Michael	Carlin	SFPUC (Hetch-Hetchy Pipelines)

Appendix B

Public Meeting Presentation and Sign-In Sheets

Sunnyvale East and West Channels Flood Protection Project

Draft Environmental Impact Report Public Meeting
November 20, 2013

Santa Clara Valley Water District

Agenda

1. Introductions and Meeting Purpose
2. Project Background and Overview
3. Draft Environmental Impact Report Summary
4. Public Comments on Draft EIR

Santa Clara Valley Water District

Meeting Guidelines

- Please silence cell phones
- Please hold questions to the end of the presentation
- Microphone is available if you wish to speak
- Please focus on environmental issues related to this Project
- Comment cards are available

Santa Clara Valley Water District

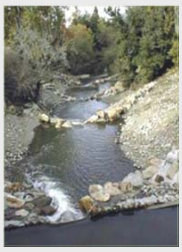
Meeting Purpose

To provide a project overview, summarize the findings of the Draft Environmental Impact Report (EIR), and receive public comments.

Santa Clara Valley Water District

Santa Clara Valley Water District's Mission

The mission of the Santa Clara Valley Water District is a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and the comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner.



District's Clean Safe Creeks Program

The Project is funded by the Clean, Safe Creeks and Natural Flood Protection (CSC) Plan, approved by voters in 2000. The CSC Plan provides funding for:

1. Flood protection for homes, schools, businesses and transportation
2. Clean, safe water in Santa Clara County creeks and bays
3. Healthy creek and bay ecosystems, and
4. Trails, parks and open space along waterways

Santa Clara Valley Water District

Setting & Background

Sunnyvale Channels

- Constructed in 1960's
- Designed to convey flood flows from a 10-year storm event
- Partially influenced by bay tides
- History of flooding and channel erosion

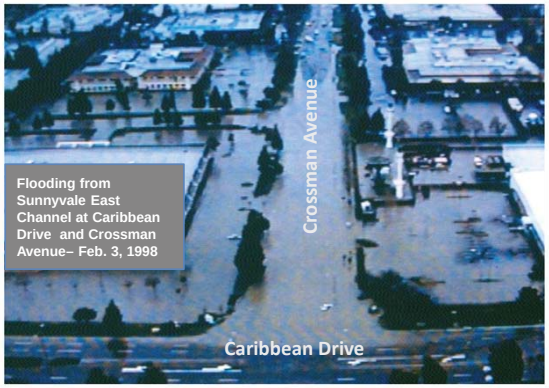
Sunnyvale Channels Project Objectives

- Provide riverine flood protection for a 100-year storm event
- Provide a basis to update FEMA flood hazard maps and alleviate flood insurance requirements
- Provide infrastructure improvements beyond FEMA freeboard standards
- Improve water quality by repairing existing erosion sites
- Provide recommendations for environmental and recreational enhancements

Santa Clara Valley Water District

History of Flooding

History of Flooding



History of Flooding

History of Erosion

History of Erosion

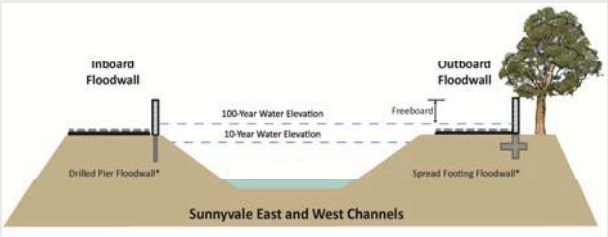
Proposed Project Components to Address History of Flooding and Erosion

- Floodwalls
- Levee Modifications
- Maintenance Road Modifications
- Bridge/Culvert Modifications
  - Carl Road and East Caribbean Drive
- Rock Slope Protection
- Sediment Removal
- Property Acquisitions

Santa Clara Valley Water District

Floodwalls

- East Channel: SF Bay up to U.S. 101, upstream of Evelyn Avenue
- West Channel: SF Bay up to Mathilda Avenue
- Vertical heights ranging from 1 to 7 feet



Levee Raising and Enlarging

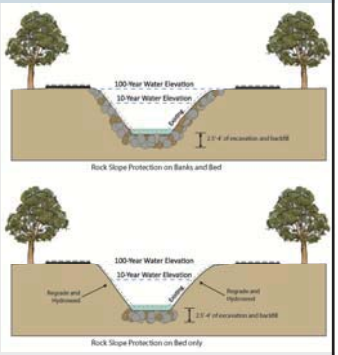
- Two sections along each channel
  - East Channel (Guadalupe Slough to Caribbean Dr.)
  - West Channel (Upstream of Pond A4 to Caribbean Dr.)
- Levees raised between 3 and 5.5 feet
- Levees widened to facilitate access
- Sloped levee ramps
- Maintenance road modifications

Bridge & Culvert Modifications

- East Channel: Caribbean Drive Bridges
  - Replace existing bridges with triple cell box culvert
- West Channel: Carl Road Culvert
  - Replace existing culvert with larger single cell box culvert
- Headwall Raising at Several locations

Erosion Control

- Repair existing channel bed and bank erosion
- Located where existing rock/concrete is failing
- Numerous locations along both channels



Other Proposed Activities

- Sediment removal:
  - East Channel ~535 cubic yards
  - West Channel ~925 cubic yards
- Bank stabilization at storm drain outfalls
- Chain link fencing
- Property acquisitions
  - East Channel:
    - 0.63 acres permanent (City of Sunnyvale, PG&E)
  - West Channel:
    - 0.35 acres permanent (Cargill)

Project Benefits

- Provide 100-year riverine flood protection
- Protect 1,618 parcels along the East Channel
- Protect over 47 acres of industrial and commercial land along the West Channel
- Reduce channel erosion
- Improve water quality

CEQA Process and Schedule

Draft EIR can be downloaded at:
www.valleywater.org/PublicReviewDocuments.aspx

Santa Clara Valley Water District

Draft EIR Contents

- Executive Summary
- Chapter 1 – Introduction
- Chapter 2 – Project Description
- Chapter 3 – Impact Discussions
- Chapter 4 – Other Statutory Considerations
- Chapter 5 – Alternatives Analysis
- Appendices

Santa Clara Valley Water District

Environmental Resources Evaluated

- Aesthetics
- Air quality
- Biological resources
- Cultural resources
- Geology and soils
- Greenhouse gas emissions
- Hazards and hazardous materials
- Hydrology and water quality
- Land use and planning
- Noise and vibrations
- Recreation
- Transportation/traffic
- Utilities/service systems
- Cumulative impacts

Santa Clara Valley Water District

Impacts Mitigated to Less than Significant

Temporary Construction-related:

- Aesthetics
  – construction screening and lighting
- Biological Resources
  – temporary impacts on species
- Hazardous Materials and Water Quality
  – disturbance of existing contaminated soil and groundwater
- Traffic/Transportation
  – temporary construction traffic
- Utilities/Service Systems
  – temporary disruption of services

Significant and Unavoidable Impacts

- Air Quality – temporary and cumulative increase in criteria pollutant (Nitrous Oxide)

2010 BAAQMD Construction Air Quality Thresholds of Significance

Pollutant	Average Daily Emissions (pounds per day)
ROG	54
NOx	54
PM_{10} and $PM_{2.5}$ (Exhaust)	82
PM_{10} and $PM_{2.5}$ (Fugitive Dust)	54
Local CO	BMPs
Acutely Hazardous Air Pollutants	None
Odors	None

Santa Clara Valley Water District

Significant and Unavoidable Impacts

- Temporary vibration impacts during construction period

Typical Levels of Groundborne Vibration

Vibration Sound Level	Typical Sources (50 ft away)
100	Blasting
90	Bulldozer
80	Train
65	Bus or Truck
50	Typical background vibration

Santa Clara Valley Water District

Alternatives to Proposed Project

- No Project Alternative
- Pond A4 Detention Basin Alternative
- Flood Protection Only Alternative
- Increased Construction Phasing Alternative

Santa Clara Valley Water District

Final EIR

- Copies of all comments received, including the public meetings
- Specific responses to each comment
- Changes to Draft EIR based on the comments and responses
- Final EIR will be distributed for 30-day public review

Santa Clara Valley Water District

Public Comments

- Public input is valued and important
- Keep comments substantive and focused on the CEQA analysis
- Comments may be given orally today or in writing during the public review period
- Please use the microphone if you wish to speak (please state your name and organization you represent, if applicable)

Santa Clara Valley Water District

How to Comment After Today

- Comments due:

5:00 pm on December 15, 2013

- Submit comments online: www.valleywater.org/PublicReviewDocuments.aspx
- Send written comments to:

Tiffany Hernandez
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
Phone: (408) 630-3094
E-mail: thernandez@valleywater.org
Subject Line: Sunnyvale Channels CEQA Comments

Include a name, address, contact number, and email address for future correspondence related to this CEQA process

Santa Clara Valley Water District

Sunnyvale East and West Channels Flood Protection Project
Draft Environmental Impact Report Public Meeting
Fairwood Elementary School, Multi-purpose Room
Wednesday, Nov. 20, 2013
6:30 – 8:00 p.m.
Please print clearly

NAME	ADDRESS	PHONE	E-MAIL	CAN WE SEND YOU INFORMATION OR EMAIL UPDATES ON WATER DISTRICT NEWS? (CIRCLE ONE)
Wayne Sung	212-C E Red Oak Dr Sunnyvale 94086			Yes or No
SON PHAN	806 LAKEBIRD DR SUNNYVALE CA 94089		THANHPHANSON@AOL.COM	Yes or No
Jose Molina	1132 Silverlake Dr Sunnyvale CA 94087			Yes or No
Leslie Lambert	1225 Vienna Drive #596 Sunnyvale, CA 94089		lesliclambert@yahoo.com	Yes or No
Jim Davis	456 W Olive Sunnyvale		jdavis@sunnyvale.ca.gov	Yes or No
Thomas Osborne	821 Lasterleaf Dr Sunnyvale 94086			Yes or No
Chad Whelan	1034 E Evelyn Av Sunnyvale 94086		chad.w.whelan@gmail.com	Yes or No
SOL SHATZ	1383 Fisherhawk Dr. SNVL, CA 94087			Yes or No
Rick Adolf	1385 Fisherhawk Dr Sunnyvale, 94087		rick@adolf94.com	Yes or No

Appendix C

Mitigation Monitoring and Reporting Program

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
AESTHETICS					
Provide Visual Screening for Construction Staging Areas in Residential Zones.	MM AES-1	The District will require contractors to provide visual screening around portions of construction staging areas that will be visible during the entirety of a construction season adjacent to resident areas. The fencing will buffer the visual effects within construction staging areas, including from equipment parking and materials storage from residents of the neighborhoods adjacent to the staging areas. Screening will consist of 6-foot-high chain-link fence covered with fabric, privacy slats, or an equivalent visual blockage. The fence will be put in place during the first week of construction staging, and will remain until construction staging is complete and equipment is demobilized from the staging area. The District will require the Contractor to only close one side of the existing channel during construction of the improvements at a time and to maintain access to the Open Space Baylands area on the other side of the existing channel.	Throughout construction	Contractor	District
Minimize Fugitive Light from Portable Sources of Light Used for Construction within Residential Zones.	MM AES-2	The construction contractor shall minimize Project-related light and glare within residential zones to the maximum extent feasible, given safety considerations, when construction at night is required. Color-corrected halide lights will be used where applicable. Portable lights will be operated at the lowest allowable wattage and height where in compliance with governing State and local laws, regulations, ordinances, etc. All lights will be screened and directed downward toward work activities and away from the night sky and nearby residents, to the maximum extent possible. The number of nighttime lights used will be minimized to the greatest extent possible.	Throughout construction	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
BIOLOGICAL RESOURCES					
Implement Compensatory Mitigation for Temporal Loss of Vegetated Wetlands and Permanent Loss of Vegetated and Unvegetated Wetlands and Other Waters	MM BIO-1	Because the functions and values supplied by unvegetated "other waters" will return to pre-project conditions immediately following the completion of Project activities (i.e., there is no delay due to the need for vegetation to re-establish), ~~M~~mitigation for ~~temporary impacts on vegetated wetlands and permanent impacts on both vegetated wetlands and unvegetated aquatic habitats shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed)~~ temporary or permanent impacts on unvegetated aquatic habitat shall be provided at a ratio of 1:1 (1 acre of mitigation for every 1 acre of disturbed) to compensate for the brief temporal loss of functions and values during Project activities. Mitigation for temporary impacts on vegetated wetlands shall be provided at a ratio of 1.2:1; this ratio is higher than that for unvegetated waters to compensate for the slightly longer time required for the functions and values of vegetated wetlands to return to pre-project conditions, yet because temporarily impacted wetlands in the Project area will regenerate quickly, a higher mitigation ratio is unnecessary. Mitigation for permanent impacts on vegetated wetlands shall be provided at a ratio of 2:1; this higher ratio reflects the permanent loss of wetlands (as opposed to the temporary impacts described previously). Mitigation shall be provided via creation or restoration of wetlands/other waters. Mitigation may be achieved through one or more options, potentially including (but not limited to): • onsite restoration or creation of wetlands or aquatic habitats (including removal of onsite fill), if feasible onsite restoration opportunities exist; • offsite restoration/creation; • financial contribution to restoration programs for tidal wetland restoration, such as the South Bay Salt Pond Restoration Project; and/or • purchase of mitigation credits at mitigation banks within the San Francisco Bay Region.	Throughout construction	District	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		Impacts on non-tidal vs. tidal wetlands and aquatic habitats will be mitigated in-kind with respect to tidal condition (i.e., impacts on non-tidal wetlands will be mitigated through restoration/preservation of non-tidal wetlands and impacts on tidal wetlands will be mitigated through restoration/preservation of tidal wetlands). If the District restores wetlands onsite or offsite, a qualified biologist selected by the District will develop a Wetland and Jurisdictional Waters Mitigation and Monitoring Plan, which shall contain the following components (or as otherwise modified by regulatory agency permitting conditions): 1. Summary of habitat impacts and proposed mitigation ratios. 2. Goal of the restoration to achieve no net loss of habitat functions and values. 3. Location of mitigation site(s) and description of existing site conditions. 4. Mitigation design: • Existing and proposed site hydrology • Grading plan if appropriate, including bank stabilization or other site stabilization features • Soil amendments and other site preparation elements as appropriate • Planting plan • Irrigation and maintenance plan • Remedial measures/adaptive management, etc. 5. Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). At a minimum, success criteria will include quantifiable measurements of wetland vegetation type (e.g., dominance by native hydrophytes) and extent appropriate for the wetland restoration location, and provision of ecological functions and values equal to or exceeding those in the wetlands and waters that are impacted.			

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		6. Contingency plan for mitigation elements that do not meet performance or final success criteria. The District shall implement the Wetland and Jurisdictional Waters Mitigation Monitoring Plan. Monitoring shall be conducted annually to document whether the success criteria are achieved, and to identify any remedial actions that must be taken if the identified success criteria are not met. Monitoring shall continue until the mitigation has been determined to be successful per project permit requirements (i.e., success criteria are achieved).			
Conduct Fish Removal during Project Site Dewatering Activities	MM BIO-2	Prior to dewatering activities in tidal reaches, a qualified biologist would use nets to exclude fish from the construction area. During a falling tide, a block net (mesh size shall not exceed 9.5 mm to ensure that longfin smelt are adequately excluded from this area but do not become entangled) shall be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists shall walk from the upper to lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net shall be installed to isolate the construction reach. This procedure shall be repeated a minimum of three times per dewatered tidal reach to assure no green sturgeon, steelhead, or longfin smelt remain within the construction area. ~~Mesh size shall not exceed 9.5 mm to ensure that longfin smelt are adequately excluded from this area~~. Subsequently, a qualified biologist will supervise the controlled dewatering of the Project reach. Fish exclusion barriers shall be left in place until project construction activities in a reach are complete. Upon the completion of construction activities, all temporary diversion structures will be removed and flows gradually restored to the channel. Following restoration of flow to the channel, the fish exclusion barriers shall be removed under the supervision of a qualified biologist.	Throughout construction	Contractor	District
Conduct Pre-Construction Surveys for Western Pond Turtles	MM BIO-3	A qualified biologist shall conduct a survey for western pond turtles and their nests within 48 hours prior to commencement of work within the channel banks in any given area where water is present. If a western pond turtle is found in an area where it could be injured or killed by Project activities, the qualified biologist will	Throughout construction	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		relocate the turtle to an appropriate site outside the Project area (e.g., the Lockheed Channel or North Moffett Channel If an active western pond turtle nest is detected within the activity area, a 25 foot-buffer zone around the nest will be established and maintained during the nesting season (April 1 through August 31). The buffer zone will remain in place until the young have left the nest, as determined by a qualified biologist. Following the initial survey, a construction crewmember who has been trained to identify western pond turtles by a qualified biologist shall conduct a survey of the in-channel activity area each morning prior to the onset of construction activities. If a turtle is located, all work in the vicinity shall immediately cease, and a qualified biologist shall be contacted. Work within the area shall not resume until the turtle has been relocated or has moved out of the area where it could be impacted.			
Pre-Construction Surveys for Nesting Birds	MM BIO-4	Pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests will be disturbed during Project implementation. Surveys shall be conducted no more than one week prior to the initiation of construction activities in any given area; because construction may be phased, surveys will be conducted prior to the commencement of each phase of construction. The survey can be limited to the portions of the Project Work Area where construction activities will occur as well as a 250-foot buffer for raptors and a 50-foot buffer for non-raptors. The Project Work Area includes the channels themselves, the District's existing right-of-way/channel easements, and designated Project staging areas. During each survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., shrubs, ruderal grasslands, wetlands, and buildings) in and immediately adjacent to the impact areas for nests. If a lapse in Project-related work of one week or longer occurs, another focused survey will be conducted before Project work can	Prior to and throughout all construction phases	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		be reinitiated.			
Implement Buffer Zones for Nesting Birds	MM BIO-5	If an active nest is found sufficiently close to the Project Work Area (i.e., within 250 feet for raptors or 50 feet for non-raptors), a qualified biologist will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 50 feet for non-raptors and 250 feet for raptors), to ensure that no nests of species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code will be disturbed during Project implementation. The buffer distance is measured as the straight-line distance between an active nest and the activity, taking both horizontal and vertical distance into account. No new[1] Project-related activities (i.e., activities that were not ongoing when the nest was established; for example, routine maintenance activities would not be considered "new") shall be performed within the buffer until the young have fledged or the nest has been determined to be inactive by a qualified ornithologist. Reductions in the standard buffers (i.e., to buffers less than 50 feet for non-raptors and less than 250 feet for raptors) may be allowed where circumstances suggest the birds will not abandon the active nest with a reduced buffer size. A qualified biologist will determine whether reducing the buffer is likely to substantially increase disturbance of nesting birds, taking into account the presence or absence of dense vegetation, type of construction work, topography, or structures that would block Project activities from view; the life history and behavior of the bird species in question; and the nature of the proposed activity. If a reduced buffer is implemented, the biologist shall monitor bird behavior in relation to work activities. At a minimum, the biologist will monitor the baseline behavior of the birds for at least 30 minutes prior to the commencement of the activity (to determine the birds' behavior in the absence of the activity) and for at least one hour	Prior to construction Throughout construction (as necessary)	District	District

[1] By establishing nests in areas with a certain level of existing activity, the birds will have demonstrated their tolerance of such activities. Thus, continuing the same level (or a reduced level) of activity should not cause the abandonment of the nest.

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		immediately following the initiation of the activity, when response by the nesting birds to the novel activity is expected to be greatest. If the birds exhibit abnormal nesting behavior which may cause reproductive failure (e.g., nest abandonment and loss of eggs and/or young), such as agitated/defensive flights and vocalizations directed towards Project personnel, birds standing up from a brooding position, birds flushing from the active nest, or cessation of provisioning of young with food, the disturbance-free buffer shall immediately be adjusted out to the standard buffer distance (250 feet for raptors and 50 feet for non-raptors) until the birds have resumed their normal behavior (e.g., incubation or feeding of young). After 2 hours with all work confined to the area outside the standard buffer, work would again be attempted in the area within the reduced buffer, and the process would be repeated to determine if the birds have habituated to the activity. If the process is repeated three times without the birds indicating that they are habituating to the activity, then the standard buffer will be maintained until the next day, when the process above would again be attempted. If the birds do not indicate that they are habituated to Project activities during the initial 2 days of attempting work within a reduced buffer, the standard buffer shall be implemented. Project activities within the reduced buffers shall not resume until the District has consulted with the California Department of Fish and Wildlife (CDFW) and both the qualified biologist and CDFW confirm that the birds' behavior has normalized, or until the nest is no longer active.			
Conduct Pre-Construction Surveys for Burrowing Owls	MM BIO-6	Pre-construction surveys for burrowing owls shall be conducted prior to the initiation of all Project activities within suitable burrowing owl habitat (i.e., ruderal/ grassland habitat with burrows of California ground squirrels). A qualified biologist will conduct an initial habitat survey, mapping areas with burrows (i.e., areas of highest likelihood of burrowing owl activity) and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement) on the project site. This mapping will be	Throughout construction	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		conducted while walking transects throughout the entire project footprint, plus all accessible areas within a 250-foot radius from the project footprint. The centerline of these transects will be no more than 50 feet apart and will vary in width to account for changes in terrain and vegetation that can preclude complete visual coverage of the area. If suitable habitat is identified during the habitat survey, preconstruction surveys will be required. To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped. Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction. ~~Pre-construction surveys will be completed in conformance with the CDFW's 2012 guidelines (CDFG 2012). An initial habitat assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat is present in a given area. During the initial site visit, a qualified biologist will survey the entire activity area and (to the extent that access allows) the area within 250 feet of the site for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat (i.e., ruderal grasslands with burrows of California ground squirrels) is present within a given area, no additional surveys will be required.~~			

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		~~If suitable burrows are determined to be present within 250 feet of work areas, a qualified biologist will conduct three additional surveys to investigate each burrow within the survey area for signs of owl use and to determine whether owls are present in areas where they could be affected by proposed activities. The final survey shall be conducted within the 24-hour period prior to the initiation of Project activities in any given area~~. Because Project activities may be phased, these survey efforts may also need to be performed in phases to ensure that burrowing owls are not present in work areas when Project activities commence. This measure applies to the staging areas as well as the Project areas along the Sunnyvale Channels.			
Implement Buffer Zones for Burrowing Owls	MM BIO-7	If burrowing owls are present during the non-breeding season (generally September 1 to January 31), a ~~150~~250-foot buffer zone shall be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, a reduced buffer and monitoring may be implemented as described under MM BIO-8~~then the buffer must be great enough to avoid injury or mortality of individual owls~~, or else the owls should be passively relocated as described in MM BIO-9 below. During the breeding season (generally February 1 to August 31), a 250- foot buffer, within which no new Project-related activities will be permissible, will be maintained between Project activities and occupied nest~~burrows~~. Owls present between February 1 and August 31 will be assumed to be nesting, unless~~and the 250- foot protected area will remain in effect until August 31. If~~ monitoring evidence indicates that the owls are no longer nesting or the young owls are foraging independently, or only a single owl (rather than a breeding pair) is present after July 1st and there is no evidence that young owls are present. If no active nesting is occurring, the buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.	Throughout construction (as necessary)	Contractor	District
Monitor Owls During Construction	MM BIO-8	Any owls occupying the Project Area are likely habituated to frequent human disturbances throughout the year in the form of District maintenance activities and recreational use of the levee		Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight

		maintenance roads. As a result, they may exhibit a tolerance of greater levels of human disturbance than owls in more natural settings, and work within the standard 250-foot buffer during the nesting season may be able to proceed without disturbing the owls. Therefore, if ~~nesting~~ owls are determined to be present on the site, and Project activities cannot feasibly avoid disturbance of the area within 250 feet of the occupied nest~~burrow~~, ~~during the nesting season (i.e., February 1 through August 31) due to other seasonal constraints, a qualified biologist will be present during all activities within 250 of the nest to monitor the owls' behavior.~~construction activities within the non-disturbance buffer will be allowed during the breeding season if the following criteria are met:
		• the nest is not disturbed, and
		• the project proponent develops an avoidance, minimization, and monitoring plan that will be approved by the CDFW prior to project construction, and that is based on the following criteria.
		  ○ A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
		  ○ The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
		  ○ If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.
		  ○ If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The biologist will excavate the burrow to			

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		prevent reoccupation after receiving approval from the CDFW. Construction activities within the non-disturbance buffer during the non-breeding season will be allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites. Alternatively, the owl(s) may be passively evicted during the non-breeding season (see Mitigation Measure BIO-9). • A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction). • The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities. • If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. • If the owls are gone for at least one week, a qualified biologist may excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone may be removed and construction may continue. ~~If in the opinion of the qualified biologist, the owls are unduly disturbed (i.e., disturbed to the point of harm or reduced reproductive success), all work within 250 feet of the occupied burrow will cease, and MM 7 shall be implemented.~~			
Passively Relocate Burrowing Owls	MM BIO-9	If construction will directly impact occupied burrows, a qualified biologist will passively evict owls from burrows during the nonbreeding season (September 1 to January 31). No burrowing owls will be evicted during the nesting season (February 1 through August 31) except with the CDFW's concurrence that evidence demonstrates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). Eviction	Throughout construction (as necessary)	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		will occur through the use of one-way doors inserted into the occupied burrow and all burrows within impact areas that are within 250 feet of the occupied burrow (to prevent occupation of other burrows that will be impacted). One-way doors will be installed by a qualified biologist and left in place for at least 48 hours before they are removed. The burrows will then be back-filled to prevent re-occupation. Although relocation of owls may be necessary to avoid the direct injury or mortality of owls during construction, relocated owls may suffer predation, competition with other owls, or reduced health or reproductive success as a result of being relegated to more marginal habitat. However, the benefits of such relocation, in terms of avoiding direct injury or mortality, would outweigh any adverse effects.			
Restoration of Temporary Impact Areas	MM BIO-10	Upland ruderal/grassland habitat in Project Work Areas on both Sunnyvale Channels north of Caribbean Drive and in the staging areas that are temporarily impacted will be restored following the completion of construction. The District shall seed these areas with a native grassland/forb seed mix to allow for the resumption of conditions suitable for use by California ground squirrels and burrowing owls.	Throughout construction (as necessary)	Contractor	District
Compensatory Mitigation for Burrowing Owls	MM BIO-11	If direct impacts of occupied breeding habitat cannot be avoided (see MM BIO-8), compensatory mitigation will be provided in the form of habitat preservation and/or management. All ruderal/non-native grasslands located within the portion of the Project Work Area located north of Caribbean Drive are considered occupied breeding habitat, because (1) burrowing owls have been widely documented to occupy the grassland habitats on the old landfills surrounding the City of Sunnyvale Recycling Center and Water Pollution Control Plant (WPCP), (2) known occupied habitat in these areas is contiguous with potentially suitable burrowing owl habitat within the Project Site, and (3) burrows and associated surrounding habitat are essential ecological requisites for	Prior to construction	District	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		burrowing owls throughout the year (CDFG 2012). Habitat compensation shall be provided for all Project impacts that result in a permanent loss of ruderal/non-native grasslands north of Caribbean Drive at a ratio of 2:1, on an acreage basis. Additional habitat compensation will be provided in the event that any burrowing owls require relocation from suitable nesting habitat (i.e., north of Caribbean Drive or in Staging Area sites 13, 14, or 15). Mitigation will consist of preservation and/or management of owl habitat at a ratio of 9.75 – 19.5 acres of suitable habitat for every pair (or single owl, if unpaired) that must be relocated from these areas, in accordance with California Burrowing Owl Consortium (1993) guidelines. The amount of mitigation habitat provided will depend on whether the mitigation habitat is occupied by burrowing owls (9.75 acres), adjacent to occupied habitat (13.0 acres), or suitable but unoccupied (19.5 acres). Compensatory mitigation is not required in the unlikely event that owls require relocation from portions of the channels south of Caribbean Drive, as these areas do not provide suitable breeding habitat. Mitigation may be provided via the management of suitable habitat on District lands (either existing lands or lands that are acquired), purchase of credits in a mitigation bank (if one is available), or contribution of funds toward the management of the required amount of suitable habitat owned by another entity (e.g., partnering with the City of Sunnyvale to manage habitat on the old landfills north of Caribbean Drive). The mitigation site must be located in Santa Clara County, or in areas of San Mateo or Alameda counties adjacent to San Francisco Bay, so that the mitigation supports the maintenance of the South San Francisco Bay burrowing owl populations. If the District provides habitat mitigation either on existing District lands or on lands that are acquired for mitigation purposes, a habitat mitigation and monitoring plan (HMMP) will be prepared detailing the following:			

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		1. the areas to be preserved for owls; 2. the methods for managing on-site habitat for owls and their prey (including vegetation management to maintain low-statured herbaceous vegetation); 3. methods for enhancing burrow availability within the mitigation site (potentially including the provision of artificial burrows, although long-term management for ground squirrels will be important as well); and 4. measures to minimize adverse effects of development on owls on the site; and a monitoring program and adaptive management program; and 5. performance indicators and success criteria, including the maintenance of ground squirrel burrows at a density similar to densities on the old landfills that currently support burrowing owls, and the maintenance of low-statured herbaceous vegetation.			
Maintain Buffer During Construction Adjacent to Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Habitat	MM BIO-12	During levee raising activities along the south/east bank of the East Channel near its confluence with Guadalupe Slough, starting at the eastern edge of the Twin Creeks Sports Complex and continuing eastward, a minimum 10-foot buffer, measured as the straight-line distance (e.g., diagonally/down-slope on a sloped bank) will be maintained between the outer limits of Project construction activities ~~(i.e., silt fence installation)~~ and any marsh habitat present beyond the Project boundary (i.e., in the wetland mitigation area to the south or along Guadalupe Slough to the north). Silt fences will be erected adjacent to construction areas to define the buffer and isolate potential harvest mouse habitat. In addition, Project personnel will ensure that the silt fencing in this area is sturdy and is regularly maintained so that no material falls into these wetlands during levee raising.	Throughout construction (as necessary)	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
Avoid Construction during Bat Maternity Season	MM BIO-13	During the maternity season (April 1 through July 31), a 100-foot buffer, within which no new, construction-related activities shall occur, will be maintained around the Highway 237 bridge over the East Channel. Modification of the headwalls at, and any other work within 100 feet of, this bridge shall occur outside the maternity season (i.e., this work will occur between August 1 and March 31) so no non-flying young will be present and any bats using the bridge will be able to disperse if they cannot tolerate this disturbance.	Throughout construction (as necessary)	Contractor	District
HAZARDS AND HAZARDOUS MATERIALS					
Conduct a Phase I and Phase II Environmental Site Assessments and Implement Site Remediation Actions Prior to Construction.	MM HM-1	Prior to excavation activities, the District will ensure that a qualified contractor conducts a Phase I and Phase II Environmental Site Assessment (ESA) at excavation sites along the entirety of the West Channel and at excavation sites along the portion of the East Channel between East Evelyn Ave and 101 in accordance with ASTM Standard E1527 – 05 (Phase I ESA) and ASTM Standard E 1903-11 (Phase II ESA), and the EPA's All Appropriate Inquiries (AAI) Rule 2005-11-01 (EPA 40 CFR Part 312). Phase I and II ESAs generally expire after one year. The objective of the Phase I ESA will be to identify recognized environmental conditions (RECs), as defined by the ASTM Standard. The object of the Phase I ESA is also to satisfy Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) AAI requirements. The ESA will identify obvious areas of significant environmental concern through a review of the site history, a review of the regulatory agency database information, the performance of a site reconnaissance, and the evaluation of potential impacts from adjacent properties. The findings of the Phase I will inform the Phase II ESA. Considering that the Phase I ESA completed in 2008 recommended completion of a Phase II ESA, a Phase II ESA will likely be recommended in the more recent Phase I ESA. The Phase II ESA will assess the presence of hazardous	Throughout construction	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		substances at the site by conducting tests of soil and water at the project site. Tests will evaluate concentrations pollutants, contaminants, petroleum and petroleum products, and human and ecological toxicity. If the conclusions of the Phase II ESA indicate that hazardous substances are not present in excavation areas and remediation of soil and groundwater is unnecessary to protect human health and the environment, all obligations of this mitigation will have been met. If the conclusion of the Phase II ESA indicate that soil or groundwater remediation are necessary to protect human health and the environment, the District will enter into a voluntary Remedial Action Agreement with the Santa Clara County Department of Public Health to ensure proper site remediation and soil and water handling procedures prior to conducting excavation or dewatering activities. The County, as the local oversight agency for the State Water Resources Control Board, will provide oversight and review of the Phase I and II ESAs and direct the District on site remediation actions.			
NOISE					
Implement Measures to Minimize Construction Vibration.	MM NO-1	The District will implement the following measures to minimize vibration impacts at nearby residences surrounding construction activities at the Project Site. ▪ Phase construction activities that involve the use of vibratory equipment (vibratory roller and vibratory hammer) so the equipment will not operate in the same time period. ▪ Avoid the use of vibratory equipment where feasible in residential areas within 75 feet of the Project Work Area.	Throughout construction	Contractor	District
TRANSPORTATION TRAFFIC					
Develop and Implement a Site-	MM TR-1	The District will develop a site-specific traffic control plan with the following mitigating actions to minimize the effects of Project construction activities and traffic on surrounding roadways, bicycle	Throughout construction	District	District

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Specific Traffic Control Plan		and pedestrian facilities, transit services, and emergency access. The plan, to be approved by the City of Sunnyvale, will be prepared by a licensed traffic engineer in accordance with the California Manual on Uniform Traffic Control and the traffic management plan requirements of corresponding jurisdictions ~~and be approved by the City of Sunnyvale~~. Traffic control shall consist of all work and materials necessary to maintain safe vehicular, pedestrian, and cyclist traffic during construction and mitigate high peak and high volume construction traffic, prevent idling and queuing, establish site access limitations and mitigation measures, identify haul routes, and provide overall control of all construction traffic entering and exiting and operating within the project area. To reduce traffic and related impacts during Project construction, the following mitigating actions will be specified in the Project construction traffic control plan: ▪ Prohibit work-site access via residential streets unless expressly approved by the City. ▪ Provide advance construction warning signage for lane closures. Limit lane closures to the duration and area required for safety. ▪ Restrict truck access to truck routes designated by the City. Heavy construction vehicles will be prohibited from accessing the Project Site from other routes. ▪ Limit truck access to the Project site between 7:00 a.m. and 6:00 p.m., unless approved in advance by the City in writing. ▪ Limit truck traffic on residential streets. At any given time, only two trucks are permitted on a residential street. ▪ Provide advance notification of necessary closures on pedestrian/bicycle facilities and maintain bicycle/pedestrian			

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		access and circulation during Project construction where safe to do so. Provide safe detour routes for bicycles and pedestrians if any closures on sidewalks, walkways, bike lanes, or trails are required. ▪ Provide crossing guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety. ▪ Notify and consult with emergency service providers, and provide emergency access by whatever means necessary, to expedite and facilitate the passage of emergency vehicles. Ensure clear emergency access to all existing buildings and facilities at all times. The District will submit a Safety and Health Plan, including emergency access plans, for approval by emergency service providers in the affected areas (including local Police and Fire Departments) as part of the traffic control plan. ▪ Repair or restore the road ROW to its original condition or better upon completion of the work. ▪ Provide adequate parking for construction vehicles, equipment, and workers within the designated staging areas. If adequate parking space is not available at a given work site and staging area, provide an off-site parking area at another suitable location, and coordinate the daily transport of construction vehicles, equipment, and personnel to and from the work site, as needed. Trucks or worker vehicles are prohibited from parking or queuing on neighborhood streets. ▪ Maintain the access of the entrance/exit driveways at the City WPCP or at other City facilities, unless approved alternative access is provided or otherwise noted in the traffic control plan.			

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		The Project construction traffic control plan will be approved by the City of Sunnyvale prior to the mobilization of any construction equipment to the Project Site and commencement of daily construction activities. The District would also coordinate, as necessary, with Caltrans and/or VTA, for traffic controls and measures affecting Caltrans and/or VTA facilities. The District will be responsible for ensuring that the plan is effectively implemented.			
Utilities/Service Systems					
Existing Utilities will be Identified and Coordination will be Conducted with Utility Owners before Construction	MM UTL-1	The District shall ensure that construction contractors for the Project perform the following: ▪ The Contractor shall notify Underground Service Alert (U.S.A.) a minimum of 5 working days prior to start of excavation or demolition. ▪ The Contractor shall verify the exact location of all indicated or field marked utilities and make a sufficient number of exploratory excavations of all utilities that may interfere with the work sufficiently in advance of the construction. Contractor shall perform exploratory excavations in the presence of the owner of the utility to be explored. Contractor shall promptly notify the Engineer when such exploratory excavations show the utility location as shown on the Drawings to be in error. ▪ The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the utility owner or order from the Engineer. All valves, switches, vaults, and meters shall be maintained and be readily accessible for emergency shutoff. ▪ The District and the owners of utilities or their authorized agents may enter upon the rights of way at all times for the purpose of operations and maintenance of their facilities or for making necessary connections or repairs to	Throughout construction	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		their properties. The Contractor shall cooperate with the District and the affected utilities engaged in such work to avoid any unnecessary delay or hindrance to such work. ▪ The Contractor shall maintain a list of telephone numbers of owners of utilities that may be encountered during construction. ▪ The Contractor shall coordinate work near utilities and protect utilities during construction. Where it is known or anticipated that an existing utility will be encountered during construction, the Contractor shall be responsible for notifying and/or coordinating with the utility owner using the appropriate Drawings at least 5 working days in advance of work in which the utility will be involved.			
Existing Utilities will be Protected during Construction.	MM UTL-2	The District shall ensure that construction contractors perform the following: ▪ The Contractor shall do all work and furnishing all materials required for protecting in place or restoring all existing above and below ground utilities disturbed or damaged during construction to a condition equal to or better than that existing prior to construction. ▪ The Contractor shall protect all utilities which may be impacted by the work. All exposed utilities shall be supported firmly and uniformly, conforming to the utility requirements. No utilities shall be left exposed for a period exceeding 8 hours unless approved by the utility and the Engineer. Unless otherwise shown on the Drawings, all utilities shall be backfilled with at least 12 inches of select backfill. ▪ All utility pole and guy anchors shall be protected and, where the walls of the trench are within 5 feet of a pole or anchor, lateral support to the pole shall be provided or a State of California licensed Structural Engineer designs an	Throughout construction (as necessary)	Contractor	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		alternative measure that is acceptable to the District Engineer. ▪ The Contractor shall immediately notify the utility owner and the Engineer if any existing utilities which have sustained damage prior to excavation, or if the plan for protection of open bodies of water from contamination for Engineer's review.			
Utility Customers will be Notified before Construction Activities Commence.	MM UTL-3	The District's Contractor is required to notify Underground Service Alert (U.S.A) a minimum of 5 working days prior to the start of excavation or demolition. Depending on the utility company, each company has minimum notifications requirements when notifying residents and businesses of interruptions to existing service. District's Contractor must comply with these minimum notification requirements set forth by the utility companies. The notification will include the timing and duration of potential service disruption. The District will conduct separately public outreach to notify the residents and businesses in the vicinity of the Project limits, a minimum of two (2) weeks prior to the start of Project's construction.	Prior to Construction	USA Notification – Contractor Public Outreach - District	District

Environmental Issue	Mitigation Measure #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
A Safety and Health Program will be Prepared and Implemented.	MM UTL-4	In compliance with Title 8 CCR, Section 5192, the District shall ensure the development and implementation of a written safety and health program and a site-specific Safety and Health Plan for construction contractors. The safety and health program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations, including events such as a leak or explosion resulting from damage to a utility. In addition, the District shall notify local fire departments whenever damage to any utility is a threat to public safety. The District shall ensure that the Safety and Health Plan is implemented by the provision of any and all training, monitoring, personal protective equipment, protective clothing, devices, equipment, and/or facilities necessary for ensuring worker safety as may be recommended and/or specified in the Safety and Health Plan. ▪ Furthermore, the District shall ensure that all construction contractor personnel understand and comply with all site health and safety requirements specified in the Safety and Health Plan.	Throughout construction (as necessary)	Contractor	District